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A STUDY OF THE EFFECTS OF SELF-CONCEPT OF
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OTHERS ON ADULTS IN THE GENERAL EDUCATION
PROGRAM IN FLINT, MICHIGAN.

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ABILITY, ROLE STRAIN, AND SIGNIFICANT OTHERS
ON ADULTS IN THE GENERAL EDUCATION
PROGRAM IN FLINT, MICHIGAN

By

E. Gene McFadden

A DISSERTATION

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1975

ABSTRACT

A STUDY OF THE EFFECTS OF SELF-CONCEPT OF ACADEMIC ABILITY, ROLE STRAIN, AND SIGNIFICANT OTHERS ON ADULTS IN THE GENERAL EDUCATION PROGRAM IN FLINT, MICHIGAN

By

E. Gene McFadden

Today an estimated one of every five students in the fifth grade will not finish high school, a waste our country cannot afford. Much of the task of educating drop-outs has been assigned to expanded adult education programs in the public schools. Formerly such programs centered mainly upon courses aimed at Americanization programs for new citizens, recreation, leisure time or liberal education activities for middle class adults, or vocational and technical education for those interested in improving their economic status.

This study was designed to determine the effects of self-concept of academic ability, role strain, and significant others on adults in the General Education Program (G.E.D.) in Flint, Michigan. A seven-part questionnaire was used which attempted to gain insights into general self-concept of ability, perceived evaluations of student's academic ability by parents, perceived evaluations of

student's academic ability by wife or husband, perceived evaluations of student's academic ability by friend, perceived evaluations of student's academic ability by teacher, role strain among adults, and significant others.

The questionnaire was administered to seventy-six adults who registered for the 1972 Flint G.E.D. winter term. Among the registrants were twenty-four assembly line workers employed at the Flint General Motors V-8 plant. The latter group was designated as the V-8 graduates, while the rest of the registrants were designated as the G.E.D. graduates. The G.E.D. students included twenty-eight whites and twenty-four blacks, while the V-8 students included twelve whites and eight blacks. Four of the participants in the V-8 program did not indicate their race.

The results of the questionnaire were programmed and processed through the Control Data Corporation (CDC) 6500 computer at Michigan State University. The statistic used was the chi square, and it was tested for significance at the .05 level.

Based upon the data, the conclusions were as follows:

1. There were no significant differences discovered between the mean scores of GED graduates and dropouts on items designed to measure general self-concept of ability.
2. There was no significant difference discovered when comparing the mean scores of GED graduates and dropouts

on perceived evaluations of student's academic ability by parents.

3. There was no significant difference discovered between the mean scores of GED graduates and dropouts on perceived evaluations of student's academic ability by wife or husband.

4. There was no significant difference discovered between the mean scores of GED graduates and dropouts on perceived evaluations of student's academic ability by a friend.

5. There was no significant difference discovered between the mean scores of GED graduates and dropouts on perceived evaluations of student's academic ability by a teacher.

6. The GED graduates experienced a lower role strain than the dropouts in racial make-up of students, sex, number of children, assistance with home chores, mental state of student who leaves children at home while at school, discouragement from persons at home, and number of nights student attends classes.

7. There was no significant difference discovered between the mean scores of V-8 graduates and GED graduates on items to measure general self-concept of ability.

8. There was no significant difference discovered between the mean scores of V-8 graduates and GED graduates

on perceived evaluations of student's academic ability by parents.

9. There was no significant difference discovered between the mean scores of V-8 graduates and GED graduates on perceived evaluations of student's academic ability by wife or husband.

10. There was no significant difference discovered between the mean scores of V-8 graduates and GED graduates on perceived evaluations of student's academic ability by a friend.

11. There was no significant difference discovered between the mean scores of V-8 graduates and GED graduates on perceived evaluations of student's academic ability by a teacher.

12. The V-8 graduates experienced a lower role strain than the GED graduates in the following items: male or female, children, living with spouse, holding a job while running a home, when children asked them to remain home with them rather than go to classes, and when anyone at home discouraged them from attending classes.

Further research questions were related to significant others. The GED graduates, V-8 graduates, and dropouts all chose the teacher as their academic significant other. The general significant other for the GED graduates and V-8 graduates was the parents. The dropouts did not respond to this question.

To my late mother, Mrs. Boralee McFadden,
who instilled in me the need for and value of an
education . . . and whose encouragement and expect-
tation served as a source of motivation.

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I am greatly indebted to Dr. Louis G. Romano, my major professor, who provided me with encouragement and inspiration throughout the entire stages of my doctoral pursuit. His professional guidance and personal approach have been a model to emulate.

I also would like to thank the members of my doctoral committee, Dr. Clyde Campbell, Dr. Wilbur Brookover, and Dr. Donald Nickerson, whose foresight, cooperation, and support have been invaluable to me.

To name all the persons who have assisted in this study would be impractical, if not impossible. However, thanks is extended to: Sister Jeanette Puchocki, Sacred Heart School, Flint, and to the Mott Foundation, whose professional and financial support made this project possible.

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CHAPTER I

INTRODUCTION

The late President John F. Kennedy told Congress in his 1963 State of the Union Message, "The future of any country which is dependent on the will and wisdom of its citizens is damaged, and irreparably damaged, whenever any of its children is not educated to the fullest extent of his capacity."¹

This concern of the late president and his successors has served to focus sustained public attention on the dropout problems in schools across the nation. Though the schools' holding power in the early 1960's was at a record high,² the problem was nevertheless monumental in scope, and the government continues to sponsor "in-programs" to rescue former dropouts and incorporate them successfully into our society.

Today an estimated one of every five students in the fifth grade will not finish high school, a waste our

¹John F. Kennedy, "State of the Union Message," 1963, in State of the Union Messages of Presidents, ed. by Fred Israel (New York: Robert Hector, 1966), p. 3147.

²National Education Association, Drop Out Studies (Washington, D.C.: National Education Association of the U.S.A., 1965), p. 7.

country cannot afford. Much of the task of educating drop-outs has been assigned to expanded adult education programs in the public schools. Formerly such programs centered mainly upon courses aimed at Americanization programs for new citizens, recreation, leisure time or liberal education activities for middle class adults, or vocational and technical education for those interested in improving their economic status.

Today, the adult general education program has been entrusted with the responsibility of making available a second chance elementary and secondary education to adults who dropped out of school in their youth.³

The public schools have accepted this responsibility and many needed programs are now in operation in most school districts. Among these programs is the General Education Development (GED) plan, established to aid students in acquiring a high school equivalency certificate.

The GED program has been responding to a need, as Almanac, 1968, reported:

Whereas of a known total national enrollment of 1,305,557 in high school evening classes and the GED classes for the school year 1965-1966, 33,485 persons acquired high school diplomas, 77,818 received equivalency certificates. In the State of Michigan, 1,950 acquired high school diplomas as compared with 6,080 receiving equivalency certificates.⁴

³National Association for Public School Adult Education, Public School Adult Education Almanac, 1968 (Washington, D.C.: National Education Association, 1968), p. 141.

⁴Ibid., p. 25.

When the dropout returns to school, it is crucial that he does not again drop out. He brings with him a recognition of his needs, but besides motivation he also brings his fears, the memory of past academic disappointment, failure, and often unfortunate school experiences. As Almanac, 1968, suggested, ". . . He feels a strong desire to fill in the gaps in his education and he comes to us for help. . . . If we disappoint him again, we may lose him forever."⁵

As Assistant Superintendent of Schools for Community Education, and active in establishing the adult General Education Development program in Benton Harbor, Michigan, a midwestern community serving an area of about 75,000 during the 1960's, the writer observed that although GED enrollment was high at the start of the four-month term, few students completed the program. The dropout rate was high. Academically, many students were facing failure for the second time. And the same thing was happening in GED programs across the country, causing educators and sociologists to take closer looks at all components of the program. What was urgently sought was the identification and alleviation of educational stumbling blocks which caused "dropping out."

Norma and Bradley Niles, in a brief study of the GED dropout problem in Benton Harbor, reported:

⁵Ibid., p. 14.

The adult brings to education a consistently high level of motivation. His purpose is generally clear and the rewards for effort are usually visible, possibly a new job, or a raise in salary directly linked to his completion of a particular course. . . . In this midwestern city the GED enrollment of 266 for the three sessions of fall 1969 through summer 1970 represents 71.6% women and 28.4% men. It was not then uncommon to have babies and toddlers accompany mothers to their classrooms. These parents have already carried a full day's work at home to make the physical sacrifice. Some have to travel long distances, skip evening meals, and some surrender evenings of entertainment. Initial motivation and value for education is high, yet the drop out rate is high.⁶

Adults enrolled in GED classes must add to their existing roles of parent, breadwinner, or spouse the commitments of the student role. They bring existing self-concepts of school ability obviously equal to the expected school work, but based on the sum of academic evaluations of themselves they have perceived among their parents, friends, and teachers. They also have incorporated recollections of past academic failure.

Self-predictions of how one will behave in the future, academically, have been found to be quite reliable as predictors of subsequent achievement, even in comparison with previous school performance and standardized tests.⁷

⁶Norma Niles and Bradley Niles, "A Term Paper: GED Program" (Western Michigan University, December, 1970).

⁷Wilbur B. Bookover et al., Self-Concept of Ability and School Achievement, III (East Lansing, Michigan: Michigan State University, February, 1967), p. 28.

Self-concept of ability is a necessary condition but not a sufficient condition in school achievement.⁸ Excessive role demands on adults plus levels of self-concepts of school ability based on perceived evaluations by significant others appear to be linked with dropping out before completion of the GED program, and have, therefore, become the subjects for scrutiny in this study.

Importance of the Study

The problem of dropouts in the adult GED program is most crucial in relation to two current trends in American society. One is the growing rate of urbanization. In 1900 more than 60 percent of the population of the United States lived in rural farm areas. Sixty years later (1960) this figure was reduced dramatically to about 10 percent. This change is relevant to the present study because farming as a ready source of work for the nongraduate is rapidly becoming nonexistent. In addition, farm operations are no longer a set of traditional chores, but more often require training as specialized as most jobs in cities.

This reflects the second important trend to which the study is relevant: the increasingly technical nature of work in the United States. Over ten years ago the United States Department of Labor stated that no increase in the percentage of unskilled employment was foreseen in the

⁸Ibid., p. 143.

1960's. At the same time, a 23 percent decrease in jobs for farm workers was forecast for the same period.⁹

It is interesting to note that almost all other types of employment in the United States required high school graduation as the minimum level of education preparation for entry into the field. Robert Dentler and Mary Warshauer summed up the recent trend:

The occupational structure has, in the meanwhile, changed in a way that further complicates change in the work force. For about thirty years, the economy has changed from dependence upon a "cheap and abundant" good-producing work force composed of mainly factory workers and farm workers, to dependence upon service-producing workers who must be more skilled or trainable, however high-priced and scarce.

The high school dropout was never much of an economic liability on the farm. For this and other reasons, the rural level of school attainment has been below the urban. Since 1945, however, a net total of about two million farm workers have left rural areas each decade to seek work in the cities. This cityward movement of less educated job seekers, while it has been going on since 1919, intensified over just these post-war years when unskilled jobs in urban as in rural areas were shrinking. Employment of professional and technical workers increased by 47% between 1950 and 1960. This was a growth rate more than three times greater than that for all occupational groups taken together.¹⁰

The expanding occupational areas in the national economy are thus those requiring very high levels of formal education. "The high school dropouts make up a large and

⁹ U.S. Department of Labor, Manpower, Challenge of the 60's (Washington, D.C.: Government Printing Office, 1960).

¹⁰ Robert Dentler and Mary Warshauer, Big City Drop-Outs and Illiterates (New York: Frederick A. Praeger, Inc., 1968), p. 61.

growing share of the part of the work force which is static, shrinking, or expanding least."¹¹ Thus the dropout problem has become more visible. The seriousness and extent of this problem has thus led to numerous efforts by educators to pinpoint and minimize obstacles to the completion of secondary education by adults in the GED program across the country. This study is one such effort, dealing specifically with the student's own view of his abilities.

Statement of the Problem

This study is an attempt to determine the effects of self-concept of academic ability, role strain, and significant others on adults in the adult general education program in Flint, Michigan.

Purpose of the Study

The purpose of this study is to provide educators with insight into the following questions:

GENERAL SELF-CONCEPT OF ABILITY¹²

1. How do you rate yourself in school ability compared with your close friends?
2. How do you rate yourself in school ability compared with those in your GED class?

¹¹Ibid., p. 62.

¹²Wilbur G. Brookover, Edsel L. Erickson, and Lee M. Joiner, Self-Concept of Ability and School Achievement, III (East Lansing, Michigan: Education Publication Services, College of Education, Michigan State University, 1967), pp. 337-338. (See Appendix D for original scale.)

3. At the end of the GED program, where do you think you would rank in your class, if you finished?
4. Do you think you have the academic ability to complete GED?¹³
5. Do you think you have the academic ability to complete college?
6. Anyway, where do you think you would rank in your class in college if you go on?
7. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. Do you think that you would complete such advanced work?
8. Let's forget for a moment how others grade your work. In your own opinion how good do you think your work is?
9. What kind of grades do you think you are capable of getting if you do your best work from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY PARENTS¹⁴

1. How do you think your parents would rate your school ability compared with other students in your GED class?
2. If you were in high school, where do you think your parents would rank you in your high school graduating class?
3. Do you think that your parents would say you have the ability to complete GED and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your parents would say it is that you would complete such advanced work?

¹³This question is not included in the Brookover scale.

¹⁴Brookover, Erickson, and Joiner, op. cit., p. 341.

5. What kind of grades do you think your parents would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY BY WIFE OR HUSBAND¹⁵

1. How do you think your wife or husband would rate your school abilities compared with other students in your GED class?
2. If you were in high school, where do you think your wife or husband would say you rank in your high school graduating class?
3. Do you think that your wife or husband would say you have the ability to complete GED and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your wife or husband would say it is that you would complete such advanced work?
5. What kind of grades do you think your wife or husband would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY BY FRIEND¹⁶

1. How do you think this friend would rate your school ability compared with other students in your GED class?
2. If you were in high school, where do you think this friend would say you rank in your high school graduating class?
3. Do you think that this friend would say you have the ability to complete GED and college?

¹⁵This section was developed by the writer, and is not part of the Brookover questionnaire.

¹⁶Brookover, Erickson, and Joiner, op. cit., p. 342.

4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this friend would say it is that you would complete such advanced work?
5. What kind of grades do you think this friend would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY TEACHER¹⁷

1. How do you think this teacher would rate your school ability compared to other students in your GED class?
2. If you were in high school, where do you think this teacher would say you would rank in your high school graduating class?
3. Do you think that this teacher would say you have the ability to complete the GED program and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this teacher would say it is that you would complete such advanced work?
5. What kind of grades do you think this teacher would say you are capable of getting in general if you do your best from now on?

ROLE STRAIN AMONG ADULTS

1. Race?
2. Sex?
3. Age?
4. Are you married - single - divorced?
5. Do you have children? If so, how many?
6. What are the ages of your children?

¹⁷Ibid., p. 343.

7. With whom do you live?
8. How many hours per week do you work?
9. Would you say that holding a job plus having the responsibility of running your home hinders you from performing better in your GED classes? If so, how much?
10. Do you have a babysitter?
11. Does anyone assist you with your home chores?
12. Do any of your children ask you to remain home with them at night instead of going to classes?
13. Does having to leave your children at home while you attend classes disturb you? If so, to what extent?
14. Which statement describes your work load between the hours you leave work and the time you arrive at GED classes?
15. Do you rest before going to GED classes?
16. Describe your physical condition in class on the average class night.
17. Did anyone at home discourage you from attending classes? If so, who?
18. How many nights per week on the average do you attend classes?

SIGNIFICANT OTHERS¹⁸

1. Who are the GED general reference groups?
2. Who are the GED academic reference groups?

Study Procedure and Instrument

Procedures in the study included selecting a survey population of adult students in a typical GED program and administering at the outset a study instrument (questionnaire)

¹⁸Ibid., pp. 347-48.

to all such students registering in a single term. Students completing the term would obtain a certificate of high school graduation equivalency. The questionnaire was designed to obtain data on self-concept of academic ability, role strain, and reference group composition. Administering the instrument before the term would offset any possible alteration of attitudes which might occur during the term. To encourage students in their studies, counseling and interviewing were provided whenever it seemed indicated. Finally, at the end of the term a comparison of the data from the questionnaires of the graduates and the nongraduates was made. Significant differences in levels of self-concept of academic ability and role strain as well as reference group composition, if any, were then analyzed to determine which factors seemed to bear relationships to success or failure in completing the GED program.

The study instrument, administered during the first class week of the 1972 Flint GED winter term, includes seven sections, i.e., general self-concept of ability, perceived evaluation of student's academic ability by parents, wife or husband, friend, teacher, role strain among adults, and significant others.

Hypotheses

Hypothesis I: The GED graduates will score higher than dropouts on items designed to measure general self-concept of ability.

- Hypothesis II: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by parents.
- Hypothesis III: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a wife or husband.
- Hypothesis IV: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a friend.
- Hypothesis V: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a teacher.
- Hypothesis VI: The GED graduates will experience a lower role strain than dropouts in the same program.
- Hypothesis VII: The V-8 graduates will score significantly higher than regular GED graduates on items to measure general self-concept of ability.
- Hypothesis VIII: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by parents.
- Hypothesis IX: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a wife or husband.
- Hypothesis X: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a friend.
- Hypothesis XI: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a teacher.
- Hypothesis XII: The V-8 graduates will have a lower role strain than regular GED graduates.

The following research questions will also be examined for the GED graduates, the dropouts, and the V-8 graduates: (1) Who are the student's academic significant others? and (2) Who are the student's significant others?

Limitations of the Study

1. As is true of any study, the validity of the study is affected by the degree of frankness and sincerity of response to the instrument administered.

2. The setting for the project is a single sixteen-week term in Flint, Michigan's "Heart in the City" GED program for high school graduation equivalency. The project was limited to the 1972 winter term of the program, and to those persons who registered for the term.

3. Any discerned relationships of significance between varying levels of self-concept of academic ability and role strain of graduates as opposed to those of dropouts are to be viewed as correlational and not causal.

Definitions of Terms

Dropout: A person surveyed who registered in the adult General Education Program in Flint, Michigan, during the 1972 winter term and for any reason, except death, left the program before graduation or completion of the sixteen-week program of studies without transferring to another program.

Graduate: A person surveyed who registered in the adult General Education Program in Flint during the 1972 winter term and completed the sixteen-week program.

Role Strain: The difficulty felt in fulfilling the sum of one's role obligations.

Role Expectations: All that is expected of an individual in a given situation in a normative rather than a predictive sense.

Role Relations: A sequence of role "bargains" made on a continuing basis by an individual.

GED (General Education Development): A concentrated academic program geared to prepare students to take and pass the general education development test equivalent to completion of secondary education and, thereby, obtain a certificate stating they have the equivalent of a high school diploma.

Self-Concept of Academic Ability: An individual's perception of what he is capable of learning.

Reference Group: Those individuals who are most important and personally influential in one's life or those one feels are most concerned about him.

Student: Any person enrolled in the Flint adult GED program.

V-8 Group: Men employed as assembly line workers in the Flint General Motors V-8 plant and enrolled in the Flint adult GED program during the 1972 winter term. These

workers had been informed they were selected by management for an educational program which would prepare them, upon completion, for job advancement in the form of an apprenticeship program.

Overview of the Study

For the purpose of convenience and systematic consideration, this study is reported in five chapters. Chapter I included an introduction to the study, statement of the problem, purpose of the study, study procedures and instrument, limitations of the study, and definitions of terms used in the study.

Chapter II contains an overview of the literature related to this study, while the design and procedures in the study are discussed in Chapter III. A description of the setting, the GED program, selection of the sample, description of the instrument, and the methods for collection of data are also included.

Chapter IV includes an analysis of the data. Each hypothesis is stated, followed with the data. Significance of each hypothesis is presented.

Chapter V contains a summary, conclusions, implications, and recommendations for the study.

CHAPTER II

REVIEW OF THE LITERATURE

Previous literature dealing with the major aspects of the subject of this study includes treatments of (a) role strain in general--especially with regard to motivation, role sets, and normative processes by which individuals allocate their existing energies to various role demands; and (b) the composition, nature, operation, and motivating power of the relationship between one's self-concept of academic ability, on the one hand, and actual academic achievement on the other. Numerous social psychologists and sociologists have touched upon aspects of these subjects in the past, and considerable concentrated study, particularly concerning self-concept, has become a prevalent concern today.

Role Strain

Goode's investigations into role strain provided much useful material for this study.¹ Holding the view that social structure is the real though invisible script for social behavior, he suggested that the theory clarifies

¹William J. Goode, "A Theory of Role Strain," American Sociological Review, January 21, 1960.

evidence that people do not carry out their role obligations because these are "functional" for society.² He stated that, as their social positions change, individuals may change both their behavior and their value orientations. He added that

The values, ideals, and role obligations of every individual are at times in conflict. The basis of social stability or integration seems precarious, and the decisions of the individual puzzling. For even when "the norms of the society" are fully accepted by the individual, they are not adequate guides for individual action. Order cannot be imposed by a general solution for all role decisions, since the total set of role obligations is probably unique for every individual.

On the other hand, the individual may face different types of role demands and conflicts, which he feels as "role strain" when he wishes to carry out specific obligations.³

Some common causes of role conflict were classified by Goode as (1) coinciding time and place demands which can make even pleasant role obligations onerous and vexing; (2) contradictory performances demanded on an individual in terms of time, place, or resources (civic vs. home obligations, officer who must order best friend to risk his life in battle, etc.); (3) the response to one's role demands causing hostilities from those involved in another of the individual's roles (balancing the budget may cause emotional problems in the breadwinner's family); and (4) the demands of several role relationships which become impossible for the individual to meet fully. Role strain

²Ibid., p. 483.

³Ibid., p. 485.

then becomes the constant situation for the individual, forcing him to develop an underlying decision process which will help him reduce role obligations.

In general, Goode said, two approaches are used: (1) the individual determines whether or when he will enter or leave a role relationship, and (2) he develops a set of techniques by which he makes or carries out role bargains with another.⁴ Goode further broke these techniques down, but summarized that "In his role decisions, as in his economic decisions, the individual seeks to keep his felt strain, role cost, or monetary and performance cost at a minimum, and may even apply some rationality to the problem."⁵

Strain-reducing mechanisms, as Goode saw them, are developed by the individual within the limits and determinants of his surrounding social structure. When he (a) chooses, if possible, a set of roles which are less onerous, mutually supportive, and minimally conflicting; or (b) obtains the most gratifying or value-productive bargain with each other (alter) in his total role pattern, he must be affected by social structure, since its elements enforce actions required for society rather than the individual. Such elements include evaluations by society, individuals important to oneself, and oneself.⁶ Goode's

⁴Ibid., p. 488. ⁵Ibid., p. 489. ⁶Ibid., p. 490.

table on evaluations of task content, alter rank, and situational urgency of role demands as related to evaluations by society, important others, and self is helpful in visualizing the impact of structure on an individual's use of strain-reducing mechanisms. Obviously, several combinations may occur.

Table 1.--Goode's table: Role demands, evaluations.

Evaluations by:	Task Content	Rank of Alter	Situational Urgency
Society			
Reference group or third party			
Alter			
Ego			

Source: William J. Goode, "A Theory of Role Strain," American Sociological Review, January 21, 1960, p. 491.

The relationship(s) possible between actions prompted by role strain and the self-concept of ability appear more and more obvious as the importance of third parties is realized in both role situations and an individual's self-evaluation. Criticism or acclaim by family, relatives, friends, and neighbors, as roles are selected and performed by an individual, has power to influence succeeding role

choices or rejections. (For this reason, it is imperative that GED programs prove a successful experience for the adult students, since a repetition of the academic failure which produced the initial dropping out of high school before graduation would in all likelihood prevent an individual from ever choosing the student role again.)

Because of the generally well-delineated obligations of certain roles in our urban society, and the fact that parent-breadwinner is a very demanding as well as common role combination, rather advantageous terms must be offered to one performing this double role if he is asked to neglect either in favor of some other demanding role. To add the role of student to that of parent-breadwinner (as well as previous dropout), is to guarantee considerable new role obligations beyond--and often in conflict with--present obligations. Motivation is engendered by way of possible or certain benefits or employability or access to a better job through the earning of a graduation-equivalency certificate. The adult who registers in such a program is in effect gambling that the strain and problems from cutting back on performance of existing roles will be more than compensated for by the embracing of the demanding student role.

Because the family is the "role budget center," as Goode called it,⁷ family relations form the most immediate

⁷Ibid., p. 487.

and persistent set of interactions important in social control. Since one's total role obligations are often known only to the members of one's family, the family becomes the vantage point for an individual's perspective on his total role system, and the learning center for procedures of balancing role strain.⁸

In an unpublished dissertation at the State University of Iowa in 1957, called "An Experimental Study of the Relationship Between Structural Behavior Patterns and Accuracy of Social Sensitivity," Lloyd H. Rogler established that there is a direct relation between role-taking and access to a communication system.⁹

Charles Horton Cooley's description of one's human environment and its integration into the personality is germane to the study. He wrote:

One's humanity is the nature which is developed and expressed in those simple, face-to-face groups that are somewhat alike in all societies; groups of the family, the playground, and the neighborhood. In the essential similarity to these everywhere is to be found the basis, in experience, for similar ideas and sentiments in the human mind. In these, everywhere, human nature comes into existence.¹⁰

And Tamotsu Shibutani, who "named" the reference group, pointed out its considerable opportunities for

⁸Ibid., p. 194.

⁹Lloyd H. Rogler, "An Experimental Study of the Relationship Between Structural Behavior Patterns and Accuracy of Social Sensitivity" (Ph.D. dissertation, State University of Iowa, 1957).

¹⁰C. H. Cooley, Social Organization (New York: Charles Scribner's Sons, 1909).

variety as a person moves from one social context to another, developing roles as he adapts to the personal commitments he makes to each situation or context. Ideas and theories from all these behavioral scientists have become integral to this study.¹¹

Self-Concept of Academic Ability

The development of an individual's self-concept of academic ability, as well as the relationship of self-concept to actual academic achievement, has received abundant attention and research from social psychologists and educators.

Brookover, Erickson, and Joiner based their research on the theoretical framework commonly identified as the symbolic interactional theory of behavior.

The basic postulate is that academic behavior or school learning is limited by the student's self-concept of his ability in these areas. We further postulate that self-concept results from the expectations and evaluation held by significant others as perceived by the student.¹²

They further reported that "the success of students in adult education programs--as well as failure--appears increasingly to coincide with what the students expect of themselves."¹³

¹¹Ibid.

¹²Brookover, Erickson, and Joiner, Self-Concept, p. iii.

¹³Ibid., p. 28.

It is true of this study, as with Brookover's,
that

Theoretical perspectives most pertinent . . . appear in the literature under the rubrics of role analysis, reference group theory, and symbolic interactionism. . . . It is the individual's interpretation of the expectations and acts of others which most influences his behavior.¹⁴

In addition, the use of "self-concept" in this study bears close relationship to Mead's behavioristic use of "self-reflective," "self-attitude," "self-consciousness," "self-communication," and "self-as-an-object."¹⁵

Harold Dillon, studying a 1961 U.S. Department of Labor, Bureau of Labor Statistics report, determined that among employed city men with one to three years of high school education, two-thirds expressed interest in occupations or professions which require undergraduate or even graduate work. Since IQ's of 91 percent of the group ranged from 104 maximum to below 85 (31 percent below), it was apparent, Dillon said, that there is little relationship between intelligence and desire for work calling for extended education and training.¹⁶ IQ was not, in other words, the key factor in the academic self-concept of the dropouts Dillon studied. As Brookover indicated,

¹⁴Ibid., p. 5.

¹⁵G. H. Mead, Mind, Self, and Society (Chicago: University of Chicago Press, 1954).

¹⁶H. J. Dillon, Early School Leavers (New York: National Child Labor Committee, 1949), pp. 77-78.

"Self-concept of ability functions to limit the learning attempted. It does not account for variations in achievement within those limits. . . ." ¹⁷

Among other findings by Dillon was the relationship existent between dropping out and social class. One phase of the study showed that eight of nine dropouts came from the lowest social class. Negro pupils dropped out at a rate 69 percent greater than whites. ¹⁸ Studies in Austin, Texas, and Tucson, Arizona, showed that a majority of the dropouts came from low-income families who lived in substandard housing and belonged to a racial minority. This kind of family tends to look on education with hostility or indifference, and children from this background find it hard to feel they "belong" in most schools or that what they learn there will ever be of any use to them. ¹⁹

Brookover said,

Under conditions of perceived surveillance it is believed that parents, friends, and teachers will have their greatest influence over the academic behavior of the student . . . and . . . information about who students think of as being important in their lives along with information about who students tend to view as being concerned with their academic behavior is pertinent to [the] investigation. ²⁰

¹⁷ Brookover, Erickson, and Joiner, op. cit., pp. 12-13.

¹⁸ Dillon, op. cit., p. 22.

¹⁹ Ibid., p. 23.

²⁰ Brookover, Erickson, and Joiner, op. cit., pp. 16-17.

Other determinations by Brookover and his associates pertinent to this study include implicit assumptions about influences on the student which may cause changes in the self-concept of ability (e.g., changes in the perceived evaluations by significant others) and the process of self-concept development resulting from language interaction with others whose perceived definitions of the individual are then taken into account by him and absorbed into the developing self-concept.

Karl Keefer's findings are pertinent to this study.

Self-predictions of how one will behave in the future, rather than wishes or ideals, have been found to be quite useful as predictors of subsequent achievement, even in comparison with previous school performance and standardized tests.²¹

This was the outcome when GED students were asked by Keefer to predict their performance in possible advanced studies or careers they knew would require such studies. The instrument used in this study not only asks students to estimate their performances in such possible advanced studies, but also how they think members of their reference groups would estimate them.

Brookover's notion that self-concept of ability is of critical importance to the extent that it limits what a student will attempt to do is a key theory in this study.

²¹Karl Keefer, "Self-Prediction of Academic Achievement by College Students," Dissertation Abstracts 24 (February 1966): 4337.

At registration, adult GED students understand the duration of the program, the attendance requirements, and specifically the nature and amount of academic achievement to which they are committing themselves. It follows that self-concept changes which affect their level of achievement negatively evidently take place after registration. "The reasons for discrepancies between a subject's 'real self' and 'ideal self,' long a subject of sociological concern and attempted study, are central to this project, and every effort is made to pinpoint significant factors in the subject's success or failure."²² Because most current educational practice studies a "global" self-concept of subjects rather than restricting study to academically relevant factors of self-concept, progress has been slow. Like Brookover's, the present study takes as a premise the idea that a student who conceives of himself as being a person with limited academic capabilities is limiting the rank within which his academic achievement can vary.²³

Currently many counselors deal with low achievers by suggesting they view themselves as unable to learn certain academic subjects, and the student's acceptance of a limiting self-definition of academic ability is considered a desirable adjustment to the situation. The student is then encouraged into some "worthwhile" vocational and social

²² Brookover, Erickson, and Joiner, op. cit., p. 25.

²³ Ibid., p. 32.

alternative which the student ought to accept as acceptable for him.²⁴ But, "whether a person likes himself or not was found to be a poor predictor of academic achievement. Academic self-predictions, on the other hand, were much better predictors of behaviors in school than were adjustment 'inventories.'"²⁵

Teachers' evaluations of students as perceived by the students are also an integral part of this study, and the student-teacher relationships have also been the subject of considerable research and literature, inasmuch as self-concept of academic ability is certain to involve perceived evaluation by teachers.

Most pertinent to this study is Shaw and Alves' study of the discrepancy between a student's self-estimate of ability and a teacher's estimate of the student's ability. They concluded that "the student may form the self-concept of his intelligence by a mirror image of the teacher's estimate of him."²⁶ Furthermore, they found that the stability of a student's mental health is also related to the teacher's estimate of his academic ability. The teacher rated what he called the "mentally unstable" student

²⁴ Ibid.

²⁵ Ibid.

²⁶ Merville C. Shaw and Gerald J. Alves, "Guidance in Practice. The Self-Concept of Bright Academic Underachievers," Personnel and Guidance Journal 42 (1964): 401-403.

below his measured academic ability, while the so-called "mentally stable" student was estimated by the teacher as more academically capable than indicated by his test scores.²⁷

Brookover worked with the implicit assumption "that a change in a student's perception of the evaluations of his academic ability made by others is a sufficient condition to elicit a change in his self-concept of academic ability."²⁸

Also pertinent is Brookover's report on a study of changes in self-concept (as influenced by teachers and peers) over a six-month period among sixth graders. It was hypothesized that children's self-estimation in school work areas (work habits, mental abilities) would move toward initial teacher ratings while self-definitions in physical and social activities would move toward agreement with peer nominations. Using sociometric techniques to assess social adjustment, investigators have found some support for the idea that successful relationships with peers occur in conjunction with academic success.²⁹ This would imply again the inseparable interplay and relationships and the ongoing development of self-concept in the individual.

²⁷ Ibid.

²⁸ Brookover, Erickson, and Joiner, op. cit., p. 13.

²⁹ Ibid., p. 34.

Brookover added,

To the extent that a society is increasingly characterized by students who have learned that they all ought to acquire high levels of academic skill, but that only a few of them are so capable, an increasing association may be observed between academic achievement and self-concept of academic ability.³⁰

Much weight is given to the Brookover theory that

Changes in perceived evaluations are significantly related to changes in self-concept of ability over one and two year periods. This relationship between changes in the two variables and the reasonably high correlation between them supports the hypothesis that perceived evaluations of others are necessary and sufficient conditions for explaining variation in self-concept of ability.³¹

Tamotsu Shibutani, discussing the myriad inconsistencies and contradictions characterizing American society today, concluded that

Culture areas [the individual's frame of reference] are coterminous with communication channels. . . . Each social world then is a culture area, the boundaries of which are set neither by territory nor by formal group membership but by the limits of effective communication.³²

Summary

The purpose of this chapter has been to review the general writings and specific studies which are relevant to this particular investigation. The literature and research in this chapter dealt with dropouts, GED programs, the development of academic as well as general self-concept, role relationships and role strain, and

³⁰ Ibid. ³¹ Ibid. ³² Ibid., p. 165.

socio-economic profiles of academic low achievers. Reference group research and literature were extensively used and are directly tied to all aspects of the study, being integral to both the in-depth study of self-concept of ability and the makeup of a student's role relationships. This study constitutes an expansion of research in the area of factors related to self-concept and perceived evaluations of student's academic ability, specifically among adults who return to school to complete secondary education.

CHAPTER III

DESIGN AND PROCEDURES IN THE STUDY

A comparative study is one in which statistical methods are used only to compare the salient features of a given data set.

In order to elicit measurable levels of self-concept of academic ability and role strain experienced by the registrants in the Flint, Michigan, adult GED program, a seven-part questionnaire was administered within the first week of class. At the end of the sixteen-week term, when graduates and dropouts were posted, the questionnaires of graduates were tabulated and compared with those of dropouts.

Statistical analysis was applied to the data to determine the presence of any significant differences in levels of academic self-concept and role strain among the two groups.

Tabulation of the data was accomplished via computer #CDC 6500 at Michigan State University. A C188R data analysis system was used for the analysis of these data. Chi square, levels of freedom, and significance of differences in academic self-concept, perceived evaluations of student's academic ability by others, and role strain

levels among graduates and dropouts were determined and used to establish or refute the validity of the hypotheses set forth in this study. The V-8 group data were subjected to the same statistical analysis.

The Setting

Flint, the second largest city in Michigan and one of America's large urban centers, ranks sixty-third in size among the nation's 231 standard metropolitan statistical areas. It is considered medium sized by national standards and is located about sixty miles northwest of Detroit at the northern fringe of the country's traditional industrial belt. Flint became a city in 1855, and now has a population of over 200,000; it serves as the urban center for another 200,000 residents in the remainder of Genesee County. Projected 1980 population for the county is 520,000.¹

Flint's economy is dominated by manufacturing industries. In the year ending July, 1968, manufacturing provided 80,600 jobs, equal to 54 percent of the 148,600 non-agricultural and salary jobs in the Flint labor market area.²

¹Census Tract Project, Flint and Genesee County
(Flint: Council for Social Agencies of Flint and Genesee County, 1963), p. 6.

²U.S. Department of Labor, Manpower Administration, Area Trends in Employment and Unemployment (Washington, D.C.: Government Printing Office, July, 1968), p. 1.

The birthplace of General Motors Corporation, Flint has been particularly dependent on the automobile industry. The modern economic and sociological history of the area has been profoundly influenced by the growth patterns of auto manufacturing. The area's major industries include one or more plants of Buick, Chevrolet, AC Spark Plug, and Fisher Body, in addition to several General Motors regional and divisional headquarters. On December 31, 1968, these establishments accounted for 77,603 jobs equaling 87 percent of all manufacturing employment according to General Motors year-end employment report of December, 1968.

Flint area residents have a level of income well above the national average. The median family income in 1968 for Genesee County was \$9,200.³ Median income of the nonwhite population is lower than that of the county, state of Michigan, and United States as a whole, but exceeds the median for all urban nonwhite families in the United States.⁴

A median of 10.9 years of school completed approximates the state of Michigan and the remainder of the county.

Through the Council of Social Agencies and Government Agencies, Flint has a fairly wide range of social services. The Council is comprised of ninety-nine volunteer

³U.S. Department of Housing and Urban Development, Analysis of the Flint Housing Market (Washington, D.C.: Federal Housing Administration, Government Printing Office, July 1968), p. 1.

⁴Census Tract Project, op. cit., p. 79.

and public agencies and operates from a new modern headquarters in the downtown area.

The Charles Stewart Mott fortune, born of the same forces of rapid urbanization and industrialization which created both the amenities and pathologies of Flint, formed the basis of the Mott Foundation, which grew in response to the challenges for social betterment and progress in the community.

The philosophical and financial contribution of the Mott Foundation, established in 1935, has had its most profound influence upon the city of Flint. Ranking in the top ten of the largest foundations in the country, it is the only foundation that has consistently expended most of its funds and efforts in a small geographic area. A statement of the philosophy of the Mott Foundation is contained in Appendix C of this study.

During the 1935-1963 period, the foundation contributed more than twenty million dollars to the Flint Board of Education with its share of the total school budget growing each year from .8 percent in 1935-36 to 7.05 percent in the school year 1962-63.

Flint community schools have benefited greatly from a 1962-63 grant which covered the school-administered, school-centered programs in health care and education, adult education and recreation, dental care and education, curriculum enrichment, youth delinquency prevention, and

high school dropout rehabilitation. In the course of an average week, more than 70,000 individuals take part in these self-help, school-centered programs. Development of the now-vast range of programs took place gradually through the years in response to expressed wants and needs. Officials and trustees of the foundation claim the community school concept to be the ideal way for effective philanthropic spending.

GED Program

The 1972 winter term of Flint's Heart of the City General Education Development program was the immediate setting for the study.

A standard placement test is administered to all adults entering the General Education Development program, and students are grouped according to their ability. Review classes in math, reading, and English are provided to prepare students for the graduate equivalency test.

Classes are held 6:30 to 9:00 p.m., taught by professional teachers who are volunteers in the program. A teacher teaches the same class three times each night and students rotate, having classes in all three areas with all three teachers. The number of classes weekly per student

⁵Peter L. Clancy, "The Contributions of the Charles Stewart Mott Foundation to the Development of the Community School Program in Flint, Michigan" (Ph.D. dissertation, Michigan State University, 1963); Mott Foundation Annual Report, 1967-68 (Flint, Michigan: Mott Foundation, 1968), p. 1.

varies depending upon the degree of review and advancement necessary between grade placement level at registration and the equivalency test.⁶

Selection of the Sample

Seventy-six adults who registered for the 1972 Flint GED winter term composed the sample for this study. The typical student surveyed was an adult between eighteen and twenty-four years of age and married with at least one child. The majority of the students were male, white, and held full-time jobs. The remaining group held part-time jobs. Specifically in this study, the GED students included twenty-eight whites and twenty-four blacks, while in the V-8 program there were twelve whites and eight blacks. Four of the participants in the V-8 program did not indicate their race.

Among the registrants were twenty-four assembly line workers employed at the Flint General Motors V-8 plant. This group provided a separate test population to be studied, and data were, therefore, compiled from their completed questionnaires for separate study in addition to the stated project study. The V-8 group was included in the study because the subjects in this group were promised an opportunity to enter an apprenticeship program after

⁶Complete details of GED curriculum are included in Appendix B.

completion of the GED program. The other sample of GED registrants was not provided with such an opportunity, although job opportunities may emerge for this group after completion of the GED program.

Description of the Instrument

The instrument used to test the hypotheses set forth in this study was a six-part instrument used by Brookover⁷ and his associates in their continuing research on self-concept of ability and academic achievement. Some modifications were made and were as follows: (1) The words "compared with other students your age" were changed to "compared with other students in your GED class"; (2) a new section was added, which centered on perceived evaluations of student's academic ability by a husband or a wife; and (3) in the general self-concept of ability scale this question was added: Do you think you have the academic ability to complete GED?

The questionnaires were designed to obtain data on (1) general self-concept of academic ability, (2) perceived evaluations of student's academic ability by parents, (3) perceived evaluations of student's academic ability by wife or husband, (4) perceived evaluations of student's academic ability by friend, (5) perceived evaluations of

⁷Brookover, Erickson, and Joiner, Self-Concept, pp. 337-48.

student's academic ability by teacher, (6) role strain among adults, and (7) student's academic significant others and student's general significant others. Administered to all registrants in the 1972 winter term of Flint's GED program, seventy-six questionnaires were completed satisfactorily for computation and analysis. Those questionnaires with incomplete answers were not included in the data analysis.

Specifically, the first section of the questionnaire dealt with self-concept and included the following research questions:

GENERAL SELF-CONCEPT OF ABILITY

1. How do you rate yourself in school ability compared with your close friends?
2. How do you rate yourself in school ability compared with those in your GED class?
3. At the end of the GED program, where do you think you would rank in your class, if you finished?
4. Do you think you have the academic ability to complete GED?
5. Do you think you have the academic ability to complete college?
6. Anyway, where do you think you would rank in your class in college if you go on?
7. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. Do you think that you would complete such advanced work?
8. Let's forget for a moment how others grade your work. In your own opinion how good do you think your work is?

9. What kind of grades do you think you are capable of getting if you do your best work from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY PARENTS

1. How do you think your parents would rate your school ability compared with other students in your GED class?
2. If you were in high school, where do you think your parents would rank you in your high school graduating class?
3. Do you think that your parents would say you have the ability to complete GED and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your parents would say it is that you would complete such advanced work?
5. What kind of grades do you think your parents would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY WIFE OR HUSBAND

1. How do you think your wife or husband would rate your school abilities compared with other students in your GED class?
2. If you were in high school, where do you think your wife or husband would say you rank in your high school graduating class?
3. Do you think that your wife or husband would say you have the ability to complete GED and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your wife or husband would say it is that you would complete such advanced work?
5. What kind of grades do you think your wife or husband would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY FRIEND

1. How do you think this friend would rate your school ability compared with other students in your GED class?
2. If you were in high school, where do you think this friend would say you rank in your high school graduating class?
3. Do you think that this friend would say you have the ability to complete GED and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this friend would say it is that you would complete such advanced work?
5. What kind of grades do you think this friend would say you are capable of getting in general if you do your best from now on?

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC ABILITY
BY TEACHER

1. How do you think this teacher would rate your school ability compared to other students in your GED class?
2. If you were in high school, where do you think this teacher would say you would rank in your high school graduating class?
3. Do you think that this teacher would say you have the ability to complete the GED program and college?
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this teacher would say it is that you would complete such advanced work?
5. What kind of grades do you think this teacher would say you are capable of getting in general if you do your best from now on?

ROLE STRAIN AMONG ADULTS

1. Race?
2. Sex?
3. Age?
4. Are you married - single - divorced?
5. Do you have children? If so, how many?
6. What are the ages of your children?
7. With whom do you live?
8. How many hours per week do you work?
9. Would you say that holding a job plus having the responsibility of running your home hinders you from performing better in your GED classes? If so, how much?
10. Do you have a babysitter?
11. Does anyone assist you with your home chores?
12. Do any of your children ask you to remain home with them at night instead of going to classes?
13. Does having to leave your children at home while you attend classes disturb you? If so, to what extent?
14. Which statement describes your work load between the hours you leave work and the time you arrive at GED classes?
15. Do you rest before going to GED classes?
16. Describe your physical condition in class on the average class night.
17. Did anyone at home discourage you from attending classes? If so, who?
18. How many nights per week on the average do you attend classes?

SIGNIFICANT OTHERS

1. Who are the GED general reference groups?
2. Who are the GED academic reference groups?

Hypotheses

- Hypothesis I: The GED graduates will score higher than dropouts on items designed to measure general self-concept of ability.
- Hypothesis II: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by parents.
- Hypothesis III: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a wife or husband.
- Hypothesis IV: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a friend.
- Hypothesis V: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a teacher.
- Hypothesis VI: The GED graduates will experience a lower role strain than dropouts in the same program.
- Hypothesis VII: The V-8 graduates will score significantly higher than regular GED graduates on items to measure general self-concept of ability.
- Hypothesis VIII: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by parents.
- Hypothesis IX: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a wife or husband.

- Hypothesis X: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a friend.
- Hypothesis XI: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a teacher.
- Hypothesis XII: The V-8 graduates will have a lower role strain than regular GED graduates.

The following research questions will also be examined for the GED graduates, the dropouts, and the V-8 graduates: (1) Who are the student's academic significant others? and (2) Who are the student's significant others?

Collection of Data

Data from the completed questionnaires were processed by the computer at the end of the term when respondents could be segregated into two groups: graduates, or those who completed the course and received equivalency certificates, and dropouts, or those who for any reason did not complete the course. In this way, research questions related to academic self-concept, perceived evaluation of a student's academic ability by others, role strain, and reference group makeup data for those who graduated could be compared with that of those who did not graduate. Determinations of chi square, degrees of freedom, and significant or nonsignificant differences at the .05 level of confidence were made for each research question. The analysis of the data would validate or nullify each research

question in the study. During the entire term informal interviewing or counseling as well as tutoring of registrants was carried on when GED teachers or students deemed it necessary. Every effort was made to encourage students to complete the program.

Summary

The purpose of this chapter was to explain the procedures and instrumentation used to fulfill the objectives of this study.

A specific description of the setting for the investigation was given including pertinent statistical information on the city of Flint, Michigan, the GED program, and the Mott Foundation. This was followed by a brief description of the selected sample.

The instrument used to test the research questions in this study was extensively described. The instruments, or questionnaires, were divided into seven sections designed to obtain data on (1) general self-concept of academic ability, (2) perceived evaluations of student's academic ability by parents, (3) perceived evaluations of student's academic ability by wife or husband, (4) perceived evaluations of student's academic ability by friend, (5) perceived evaluations of student's academic ability by teacher, (6) role strain among adults, and (7) student's academic significant others and student's general significant others.

The final section of this chapter briefly explained the process of analyzing the collected data, while the following chapter is devoted to the analysis of the data gathered in this study.

CHAPTER IV

ANALYSIS OF THE DATA

It has been the purpose of this comparative study to examine a series of research questions related to general self-concept of abilities, perceived evaluations of a student's academic ability by others, and role strain of regular GED graduates and dropouts in the Flint GED program. A further purpose of the study was to examine a series of research questions related to self-concept of V-8 graduates and regular GED graduates. Further research questions examined the students' academic significant others and students' general significant others. These research questions were presented in Chapter III around which this study has been developed. The research questions have been analyzed separately and the data obtained. Appropriate explanations are presented in this chapter.

Research Questions Related to General Self-Concept of Academic Ability (Dropouts and Regular GED Graduates)

Questions 1-9 in the questionnaire presented the data related to self-concept of academic ability.

Question 1: How do you rate yourself in school ability compared with your close friends?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	4	1	4	1
I am above average	21	5	25	7
I am average	67	16	64	18
I am below average	8	2	7	2
I am the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

An analysis of the data did not show a significant difference between the regular GED graduates and the dropouts when the 5 percent significance level was used. The chi-square value was very small ($\chi^2 = .144$ with 3 degrees of freedom) and would not be significant even if the significance level were raised substantially. The category percentages were extremely close in all categories, which clearly indicated that no significantly different responses can be expected on this question.

Question 2: How do you rate yourself in school ability compared with those in your GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	4	1	-	0
I am above average	33	8	17	5
I am average	46	11	79	22
I am below average	13	3	4	1
I am the poorest	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Although the chi-square was much larger on this question than on question 1 ($\chi^2 = 7.093$ with 4 degrees of freedom), it is still not significant at the 5 percent level. The percentages differed greatly in the second and third categories, but not enough to give a statistically significant result. The outcome of this analysis pointed out the danger of looking at the category percentages alone without applying the chi-square test. Many tables which may appear to indicate substantially different responses at first glance did not yield a statistically significant result when subjected to chi-square analysis.

Question 3: At the end of the GED program, where do you think you would rank in your class, if you finished?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	8	2	-	0
I am above average	33	8	24	7
I am average	38	8	75	21
I am below average	17	5	-	0
I am the poorest	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The chi-square test for independence yielded a significant result ($\chi^2 = 12.12$ with 2 degrees of freedom, significant at the 1 percent level). An examination of the data indicated that 75 percent of the dropouts classified themselves as average or above, while 100 percent of the regular GED graduates classified themselves as average or above. None of the regular GED graduates felt that they were below average on this question.

Question 4: Do you think you have the academic ability to complete GED?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	33	8	32	9
Yes	50	12	57	16
Not sure either way	8	2	11	3
No	9	2	-	0
No, definitely	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

For this question, $\chi^2 = 2.538$ with 3 degrees of freedom was not significant at the 5 percent level. The percentages were nearly the same in all but the last category, which contained only two individuals.

Question 5: Do you think you have the academic ability to complete college?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	63	15	71	20
Not sure	12	3	29	8
No	25	6	0	0
Base	100	(24)	100	(28)

The hypothesis of independence was rejected at the 5 percent significance level (chi-square value $\chi^2 = 8.731$, with 2 degrees of freedom). An analysis of the data indicated that there was not much difference between the two groups when only those who felt that they could complete college were considered (63 percent for dropouts vs. 71 percent for graduates). However, 25 percent of all dropouts did not believe that they could complete college, while none of the graduates fell in this category.

Question 6: Anyway, where do you think you would rank in your class in college if you go on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	17	4	4	2
Above average	54	13	89	24
Average	25	6	7	2
Below average	4	1	-	0
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

On this question the chi square value $\chi^2 = 6.669$ (with 3 degrees of freedom), while reasonably high, was not statistically significant at the 5 percent level. The percentages were quite different and the result would be independent if the 10 percent significance level were employed. However, the 10 percent level allowed for a higher probability of type I error than was generally considered acceptable in a study of this type.

Question 7: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. Do you think that you would complete such advanced work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	25	6	36	10
Not sure	13	3	32	9
Probably not	29	7	29	8
Definitely not	33	8	3	1
Base	100	(24)	100	(28)

The hypothesis of independence was rejected at the 5 percent level ($\chi^2 = 9.258$, with 3 degrees of freedom). Although the percentages were close in some categories, 33 percent of all dropouts regarded themselves as definitely incapable of graduate study, while only 3 percent of the regular GED graduates felt this way.

Question 8: Let's forget for a moment how others grade your work. In your own opinion how good do you think your work is?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
My schoolwork is:				
Excellent	8	2	4	1
Good	42	11	32	9
Average	33	8	64	18
Below average	13	3	-	0
Much below average	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The response on this question was similar to that on question 6. The percentages were rather different, particularly in the third category, but the chi-square ($\chi^2 = 7.309$ with 4 degrees of freedom) was not significant at either the 5 percent or the 10 percent significance level.

Question 9: What kind of grades do you think you are capable of getting if you do your best from now on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	8	2	25	7
Good	71	17	57	16
Average	17	4	18	5
Below average	4	1	-	0
Weak	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Although the percentages in the first two categories were not very close, the observed frequencies were, particularly in the second category. The chi-square ($\chi^2 = 3.657$ with 3 degrees of freedom) was small and nowhere near significance at the 5 percent level.

Perceived Evaluations of Student's
Academic Ability by Parents

Question 1: How do you think your parents would rate your school ability compared with other students in your GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	4	1	3	1
Above average	33	8	25	7
Average	38	9	61	17
Below average	8	2	-	0
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Again the chi-square test failed to yield significance at the 5 percent level ($\chi^2 = 4.849$ with 4 degrees of freedom). The percentages were different in the third category, but fairly close in all others.

Question 2: If you were in high school, where do you think your parents would say you would rank in your high school graduating class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	4	1	4	1
Above average	21	5	25	7
Average	42	10	64	18
Below average	17	4	-	0
Among the poorest	-	0	4	1
No answer	16	4	3	1
Base	100	(24)	100	(28)

Although the percentages were very close only in the first category, the chi-square value of $\chi^2 = 5.899$ (with 3 degrees of freedom) was too low to be significant at the 5 percent level.

This table was originally analyzed with six categories and the responses of the two groups were found to be significantly different at the 5 percent level. However, in the first analysis some of the expected cell frequencies were so low that the chi-square procedure was invalid. To avoid this problem several categories were combined to form a four-category table. The fact that the responses were no longer significant indicated that the apparent significance

in the initial analysis was due to the low expected cell frequencies.

Question 3: Do you think that your parents would say you have the ability to complete GED and college?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	21	5	21	6
Yes	58	14	64	18
Not sure either way	4	1	7	2
No	-	0	-	0
No, definitely	-	0	-	0
No answer	17	4	8	2
Base	100	(24)	100	(28)

Once again the differences in responses between the two groups did not differ significantly at the 5 percent level. The category percentages were all fairly close and the chi-square was low ($\chi^2 = 2.222$ with 3 degrees of freedom).

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your parents would say it is that you would complete such advanced work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	29	7	47	13
Not sure	12	3	43	12
No	42	10	3	1
No answer	17	4	7	2
Base	100	(24)	100	(28)

The test for independence yielded a significant chi-square at the 1 percent level ($\chi^2 = 15.011$, with 3 degrees of freedom). As indicated by the large value of the chi-square statistic, the percentages were drastically different in all categories, but particularly the "no" category, which contained 42 percent of the dropouts but only 3 percent of the regular GED graduates.

Question 5: What kind of grades do you think your parents would say you are capable of getting in general if you do your best from now on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	13	3	25	7
Good	54	13	46	13
Average	17	4	25	7
Below average	-	0	-	0
Weak	-	0	-	0
No answer	16	4	4	1
Base	100	(24)	100	(28)

On this question the category percentages were relatively close except for the last category, which contained only five individuals. The chi-square value $\chi^2 = 2.834$ (3 degrees of freedom) was low and nowhere near significance at the 5 percent level.

Perceived Evaluations of Student's Academic
Ability by Wife or Husband

Question 1: How do you think your wife or husband would rate your school abilities compared with other students in your GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Best	13	3	11	3
Above average	25	6	28	8
Average or below	19	7	61	17
No answer	33	8	-	0
Base	100	(24)	100	(28)

The chi-square on this question was $\chi^2 = 12.217$ (with 3 degrees of freedom), which was significant at the 1 percent level. Drastic differences in both frequencies and percentages in categories three and four accounted for this significance. Although the results of this table were statistically significant, care must be employed in the practical interpretation of this table since category four--the nonresponse category--contributed heavily to the statistical significance.

Question 2: If you were in high school, where do you think your wife or husband would say you rank in your high school graduating class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Best or above average	29	7	26	10
Average or below	38	9	64	18
No answer	33	8	-	0
Base	100	(24)	100	(28)

Again large differences in the responses of the graduates and dropouts in the last two categories accounted for the fact that the chi-square was significant at the 1 percent level ($\chi^2 = 11.289$ with 2 degrees of freedom).

Question 3: Do you think that your wife or husband would say you have the ability to complete GED and college?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	17	4	25	7
Yes or not sure	50	12	71	20
No answer	33	8	4	1
Base	100	(24)	100	(28)

On this question the chi-square value was $\chi^2 = 8.002$ with 2 degrees of freedom, which was significant at the 5 percent level. Differences in the second and third categories accounted for these differences. However, the results of this question should be interpreted with caution. Of the thirty-two in the "yes" or "not sure" category, only one answered "not sure." (This was why these categories had to be combined.¹) Thus the differences in responses were essentially differences between answers of "yes" and "yes, definitely" with a total of nine "no" answers.

¹W. J. Dixon and F. J. Massey, Jr., Introduction to Statistical Analysis (3rd ed.; New York: McGraw-Hill, Inc., 1957), p. 225.

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your wife or husband would say it is that you would complete such advanced work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes or yes, definitely	33	8	47	13
Not sure	13	3	36	10
No or no, definitely	21	5	17	5
No answer	33	8	-	0
Base	100	(24)	100	(28)

Fairly large differences in both frequency and percentage in all but the third category accounted for the high chi-square value ($\chi^2 = 12.727$ with 3 degrees of freedom), which was significant at the 1 percent level.

Question 5: What kind of grades do you think your wife or husband would say you are capable of getting in general if you do your best from now on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	13	3	36	10
Good	41	10	32	9
Average	13	3	32	9
No answer	33	8	-	0
Base	100	(24)	100	(28)

Once again the chi-square test yielded significance at the 1 percent level ($\chi^2 = 15.55$ with 4 degrees of freedom).

Large differences in frequencies in all but the second category accounted for this significance.

Perceived Evaluations of Student's Academic
Ability by Friend

Question 1: How do you think this friend would rate your school ability compared with other students in your GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Best or above average	54	13	29	8
Average or below	46	11	71	20
Base	100	(24)	100	(28)

The original analysis which found a significant difference (5 percent level) in the responses of the two groups was invalid due to excessively low expected cell frequencies in some categories. Upon reanalyzing using the 2 x 2 table above, the chi-square is $\chi^2 = 2.534$ with 1 degree of freedom, which was not significant at the 5 percent level, although the category percentages differ by quite a bit.

Question 2: If you were in high school, where do you think this friend would say you rank in your high school graduating class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	-	0	8	2
Above average	46	11	21	6
Average	46	11	71	20
Below average	8	2	-	0
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Once again the responses did not differ significantly at the 5 percent level ($\chi^2 = 5.891$ with 3 degrees of freedom). The category percentages were quite different, but the expected category frequencies differed from the observed frequencies by only three in categories two and three, and were very close in categories one and four.

Question 3: Do you think that this friend would say you have the ability to complete GED and college?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	8	2	7	2
Yes	79	19	86	24
Not sure either way	8	2	7	2
No	5	1	-	0
No, definitely	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

On this question even the category percentages were close. The chi-square value was rather low ($\chi^2 = 1.281$ with 3 degrees of freedom) and was far from significant at the 5 percent level.

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this friend would say it is that you would complete such advanced work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	-	0	4	1
Yes	38	9	50	14
Not sure either way	21	5	29	8
No	33	8	14	4
No, definitely	8	2	3	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

The chi-square value $\chi^2 = 4.739$ (4 degrees of freedom) was not significant at the 5 percent level. Even the category percentages were reasonably close with the exception of the fourth category.

Question 5: What kind of grades do you think this friend would say you are capable of getting in general if you do your best from now on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	8	2	18	5
Good	75	18	36	10
Average or below average	17	4	46	13
Base	100	(24)	100	(28)

In this table the chi-square test for independence was significant at the 5 percent level ($\chi^2 = 8.076$ with 2 degrees of freedom). The percentages differed by at least 10 percent in all categories and by almost 40 percent in the "good" category.

Perceived Evaluations of Student's
Academic Ability by a Teacher

Question 1: How do you think this teacher would rate your school ability compared to other students in your GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	8	2	4	1
Above average	33	8	25	7
Average	42	10	71	20
Below average	8	2	-	0
Among the poorest	-	0	-	0
No answer	9	2	-	0
Base	100	(24)	100	(28)

Although the percentages differed greatly in the third category, the expected category frequencies were rather close to the observed frequencies for most categories and the chi-square value $\chi^2 = 5.739$ (4 degrees of freedom) was nowhere near significance at the 5 percent level.

Question 2: If you were in high school, where do you think this teacher would say you would rank in your high school graduating class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	8	2	3	1
Above average	21	5	18	5
Average	54	13	79	22
Below average	13	3	-	0
Among the poorest	-	0	-	0
No answer	4	1	-	0
Base	100	(24)	100	(28)

The results for this table were rather similar to those for the table in question 1. The chi-square was about the same ($\chi^2 = 5.879$ with 4 degrees of freedom) and was, of course, not significant at the 5 percent level. The category percentages were rather close in the first two categories.

Question 3: Do you think that this teacher would say you have the ability to complete the GED program and college?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	21	5	7	2
Yes	71	17	79	22
Not sure either way	4	1	14	4
No	-	0	-	0
No, definitely	-	0	-	0
No answer	4	1	-	0
Base	100	(24)	100	(28)

The percentages were fairly close in category two, which contained 75 percent of the individuals responding to this question. It was not surprising, therefore, that the chi-square test ($\chi^2 = 4.445$ with 3 degrees of freedom) failed to yield a significant result at the 5 percent level.

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this teacher would say it is that you would complete such advanced work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	55	13	50	14
Not sure	8	2	46	13
No or no answer	37	9*	4	1
Base	100	(24)	100	(28)

*One of the dropouts gave no answer on this question.

In these data the chi-square test for independence was significant at the 1 percent level ($\chi^2 = 14.28$ with 2 degrees of freedom). Thirty-seven percent of the dropouts anticipated a negative reaction from their teacher on this question, while only 4 percent of the regular GED graduates felt this way. However, 46 percent of the regular GED graduates as opposed to only 8 percent of the dropouts were not sure on this question.

Question 5: What kind of grades do you think this teacher would say you are capable of getting in general if you do your best from now on?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	8	2	21	6
Good	63	15	43	12
Average	25	6	29	8
Below average	-	0	4	1
Weak	-	0	3	1
No answer	4	1	-	0
Base	100	(24)	100	(28)

The category percentages were not particularly close on this question, but the expected frequencies were all fairly close to the observed frequencies. The result was a moderately low chi-square ($\chi^2 = 5.345$ with 5 degrees of freedom) which was clearly not significant at the 5 percent level.

Research Questions Related to Role Strain
(Dropouts and Regular GED Graduates)

Question 1: What is the racial make-up of the Flint GED Program?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Black	33	8	53	15
White	67	16	29	8
Other	-	0	-	0
No answer	-	0	18	5
Base	100	(24)	100	(28)

The chi-square test for independence between race and whether a person graduated or dropped out was highly significant ($\chi^2 = 9.546$, with 2 degrees of freedom at the 1 percent level. Fifty-three percent of all regular GED graduates were Black as opposed to 29 percent White, while only 33 percent of the dropouts were Black as compared to 67 percent White. Of the regular GED graduates, 18 percent did not state their race; therefore, the significance of these data could have been affected.

Question 2: Sex?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Male	54	13	39	11
Female	46	11	43	12
No answer	-	0	18	5
Base	100	(24)	100	(28)

On this question ($\chi^2 = 4.932$ with 2 degrees of freedom), there was significance at the 5 percent level. The observed and expected frequencies were almost identical in the first two categories. Five of the graduates refused to answer this question, as opposed to none of the dropouts, but what this indicated was uncertain.

Question 3: Age?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
17 and under	4	1	-	0
18-24	50	12	32	9
25-34	21	5	25	7
35-44	8	2	11	3
45-54	13	3	11	3
55-64	-	0	-	0
65 and over	-	0	-	0
No answer	4	1	21	6
Base	100	(24)	100	(24)

The expected category frequencies in the above table were all very close with the exception of the no-response category. It was not surprising, therefore, that the chi-square test did you yield a significant result ($\chi^2 = 4.098$ with 5 degrees of freedom).

Question 4: Are you married - single - divorced?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Married	62	15	71	20
Single	17	4	21	6
Divorced	21	5	4	1
No answer	-	0	4	1
Base	100	(24)	100	(28)

Except for the "divorced" category the percentages were close, and the chi-square value of $\chi^2 = 4.500$ (3 degrees of freedom) was far from significant at the 5 percent level.

Question 5: Do you have children? If so, how many?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
None	8	2	28	8
One	50	12	14	4
Two	29	7	14	4
Three	13	3	22	6
Four or more	-	0	22	6
Base	100	(24)	100	(28)

The overall test for independence was significant at the 1 percent level ($\chi^2 = 15.200$ with 4 degrees of freedom). Dropouts tended to have either one or two children (50 percent and 29 percent, respectively), whereas only 14 percent of the regular GED graduates were in each of these categories. Twenty-eight percent of the regular GED graduates had no children as opposed to only 8 percent of the dropouts. At the other end of the table, however, 22 percent of the regular GED graduates had four or more children, while there were no dropouts in this category. These apparently contradictory results may have the following explanation. Some people reacted to parenthood by dropping out, while others, particularly those with many children, became more determined than ever to graduate.

Question 6: What are the ages of your children?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Below school age	54	13	21	6
K-8	13	3	11	3
High school 9-12	-	0	7	3
College age 18-21	-	0	-	0
Over 21	3	1	4	1
Below school age, K-8	21	5	11	3
Below school age, K-8, high school 9-12	-	0	14	4
None	3	1	7	2
No answer	3	1	25	7
Base	100	(24)	100	(28)

Except for the first and last categories, the expected category frequencies were very close to the observed frequencies. The result was a nonsignificant chi-square ($\chi^2 = 13.686$ with 7 degrees of freedom).

Question 7: With whom do you live?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Spouse	33	8	50	14
Parent	13	3	7	2
Friend	-	0	3	1
Relative	-	0	4	1
Other	21	5	18	5
No answer	33	8	18	5
Base	100	(24)	100	(28)

The observed frequencies were close in all but the first category. It was not surprising, therefore, that

the chi-square was not significant at the 5 percent level ($\chi^2 = 4.246$ with 5 degrees of freedom).

Question 8: How many hours per week do you work?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
8 hrs or less	-	0	3	1
9-16	-	0	3	1
17-24	-	0	4	1
25-40	38	9	25	7
41-54	21	5	29	8
54 plus	4	1	4	1
None	4	1	14	4
No answer	33	8	18	5
Base	100	(24)	100	(28)

As on question 7, the category frequencies were quite close for both groups. The chi-square value, $\chi^2 = 8.236$, was fairly high, because there were eight categories on this question. With seven degrees of freedom, a chi-square value of 14.067 was required for significance at the 5 percent level.

Question 9: Would you say that holding a job plus having the responsibility of running your home hinders you from performing better in GED classes? If so, how much?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Does not hinder	29	7	54	15
Hinders little	13	3	11	3
Hinders very little	4	1	4	1
Hinders much	8	2	7	2
Very much	13	3	4	1
No answer	33	8	20	6
	100	(24)	100	(28)

The observed frequencies were very close except for the first category, and even the category percentages were close. Obviously a significant chi-square was not expected under these circumstances. $\chi^2 = 5.066$ (5 degrees of freedom) was not significant at the 5 percent level.

Question 10: Do you have a babysitter?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	42	10	25	7
No	8	2	54	15
No answer	50	12	21	6
Base	100	(24)	100	(28)

Again there was a significant lack of independence between the variables of classification, this time at the 1 percent level ($\chi^2 = 12.24$ with 2 degrees of freedom).

The percentages for dropouts and regular GED graduates differed greatly in each category with a surprising 50 percent of the dropouts refusing to answer this question.

Question 11: Does anyone assist you with your home chores?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	4	1	36	10
No	21	5	61	17
No answer	75	18	3	1
Base	100	(24)	100	(28)

The chi-square test was significant at the 1 percent level ($\chi^2 = 28.99$ with 2 degrees of freedom). Again the percentages in each category differed greatly between regular GED graduates and dropouts. As on question 10, the dropouts had a very high nonresponse rate (75 percent).

Question 12: Do any of your children ask you to remain home with them at night instead of going to classes?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	25	6	21	6
No	58	14	61	17
No answer	17	4	18	5
Base	100	(24)	100	(28)

On this question the chi-square value was extremely low ($\chi^2 = .319$ with 2 degrees of freedom), and nowhere near

significant at the 5 percent level. The category percentages were extremely close in all categories.

Question 13: Does having to leave your children at home while you attend classes disturb you? If so, to what extent?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Does not disturb	14	3	80	16
Very much	36	8	-	0
Not much	32	7	20	4
No answer	18	4	-	0
Base	100	(22)	100	(20)

This question elicited significantly different responses from the regular GED graduates and dropouts ($\chi^2 = 21.67$ with 4 degrees of freedom; significant at the 1 percent level). Eighty percent of the regular GED graduates were not disturbed by leaving their children compared to only 14 percent for the dropouts. On the other hand, 36 percent of the dropouts were very much disturbed about leaving their children, while this was not true of the regular GED graduates. Apparently, concern over leaving one's children was an important factor in the decision to drop out.

Note that the dropouts total twenty-two and the regular GED graduates twenty instead of the usual twenty-four and twenty-eight, respectively. This was because two of the dropouts and eight of the graduates had no children.

Question 14: Which statement describes your work load between the hour you leave work and the time you arrive at GED classes?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very heavy	8	2	11	3
Heavy	13	3	21	6
Light	12	3	25	7
Very light	38	9	25	7
No answer	29	7	18	5
Base	100	(24)	100	(28)

None of the category frequencies differed by much on this question. The category percentages were never very far off and were actually quite close in some categories. The chi-square value $\chi^2 = 2.700$ (4 degrees of freedom) was not significant at the 5 percent level.

Question 15: Do you rest before going to GED class?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	17	4	40	11
No	83	20	46	13
No answer	-	0	14	4
Base	100	(24)	100	(28)

If this table were analyzed as a 3 x 2 contingency table, the result would be significant at the 5 percent level ($\chi^2 = 8.494$ with 2 degrees of freedom). However, the expected frequency in the third row, first column (no answer,

dropouts) is 1.846, which was less than the minimum of two required for the validity of the chi-square test for independence. When the last two rows were combined and the table reanalyzed, the result was no longer significant at the 5 percent level ($\chi^2 = 2.21$ with 1 degree of freedom).

Question 16: Describe your physical condition in class on the average class night.

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Tired	17	4	14	4
Very tired	4	1	7	2
Not tired at all	29	7	32	9
Fairly tired	50	12	39	11
No answer	-	0	8	2
Base	100	(24)	100	(28)

Once again the category frequencies were very close; the percentages were also close, and the chi-square ($\chi^2 = 2.333$ with 4 degrees of freedom) was not significant at the 5 percent level.

Question 17: Does anyone at home discourage you from attending classes? If so, who?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
No discouragement	50	12	89	25
Discouragement from spouse or other source*	50	12	11	3
Base	100	(24)	100	(28)

*Eleven of the dropouts in this category were discouraged by their spouses. None of the regular GED graduates in this category was discouraged by his/her spouse.

Chi-square equals 19.251 with 3 degrees of freedom resulted in a high significance even at the 1 percent level.

Question 18: How many nights per week on the average do you attend classes?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
One	4	2	43	12
Two	23	5	39	11
Three to five	23	5	7	2
No answer	50	12	11	3
Base	100	(24)	100	(28)

The chi-square of 15.865 with 3 degrees of freedom was significant at the 1 percent level. Both the frequencies and percentages differed drastically in all categories, resulting in a very high chi-square.

Research Questions Related to General
Significant Others and Academic
Significant Others: Dropouts
and Regular GED Graduates

Question 1: Who are the GED general significant others?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Spouse	10		14	
Teacher	0		9	
Parent	11		26	
Friend	14		22	
Sister	0		2	
Brother	3		5	
Minister	1		4	
No answer	60		18	
Base	100	(24)	100	(28)

The most frequent general significant other for the regular GED graduate was the parent, followed by the friend and spouse; for the dropout, the friend, parent, and spouse were the significant other in that order. Unfortunately, 60 percent of the dropouts did not provide an answer to this particular question.

Question 2: Who are the GED academic significant others?

	<u>Dropouts</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Close friend	8		6	
A classmate	4		8	
My husband/wife	17		7	
Teacher	54		60	
Other*	7		10	
No answer	10		9	
Base	100	(24)	100	(28)

*Answers which included sister, brother, uncle, next-door neighbor, etc.

The most frequent academic significant other was the teacher for both the dropout and the regular GED graduate. The husband or wife in the dropout group seemed to play an important part in the decision-making for the group, too.

Summary--Regular GED Graduates and Dropouts

General Self-Concept of Academic Ability

The first questionnaire was related to self-concept of academic ability and examined both the regular GED

graduates and dropouts. Only question 3, which asked the student where he would rank in his class at the finish of the GED program, was found to be significant at the 1 percent level.

Perceived Evaluations of
Student's Academic Ability
by Parents

The only question to be significant at the 1 percent level was related to whether or not the students felt their parents believed they could complete four years of college and then continue in graduate school in professional schools such as medicine, law, engineering, or education. All other questions asked were not found to be statistically significant.

Perceived Evaluations of
Student's Academic Ability
by Wife or Husband

In the five questions on perceived evaluations of the GED student's ability by a wife or husband, the data showed significance at the 1 percent level except for one question. In the wife or husband's perceived evaluation of the GED student's ability to complete GED and college, the data were significant at the 5 percent level. Of the various perceived evaluations of the student's academic ability by others, the wife or husband seemed to be the one person who believed the GED student could succeed in whatever academic path the student chose to follow.

Perceived Evaluations of
Student's Academic Ability
by a Friend

In the five questions asked in the questionnaire, only one was found to be statistically significant. The GED student felt his or her friend believed he could achieve good grades. The data were found to be of significance at the .05 level.

Perceived Evaluations of
Student's Academic Ability
by a Teacher

Of the five questions asked on the perceived evaluations of student's academic ability by a teacher, only one was found to be statistically significant. The GED graduates felt that their teachers believed they could complete four years of college and then could continue graduate studies. These data were significant at the 1 percent level.

Statistical Analysis

The reader is cautioned to exercise care in interpreting the meaning of the statistical significance. On question 4 (wife or husband perceived evaluation), for example, there was a statistically significant (5 percent level) difference in the responses of the regular GED graduates and dropouts. However, the distinction being made was between those who answered "yes, definitely" and those who answered "yes" to the question. Thus, the

responses, although statistically significant, varied only slightly.

Questions which were not significant at the 5 percent level on the preliminary analysis were not reanalyzed since combining categories tended to reduce the chance that the chi-square test would yield significance. Thus, those questions which failed to elicit a statistically significant response on the initial analysis would fail once again on the follow-up analysis.

The reader may have noticed that many of the tables which have rather different category percentages failed to be statistically significant. Percentages can be rather deceptive when the sample sizes were relatively small, as they were in this study. In order for the chi-square statistic to be large enough to be significant (assuming that the expected category frequencies are all at least two), it is necessary that the observed and expected frequencies be considerably different in most if not all categories. Since the sample sizes are almost equal in this study, a quick and fairly accurate estimate of the expected cell frequencies can be obtained by simply averaging the observed frequencies for a given category.

Summary: Role Strain Questions--
GED Graduates and Dropouts

Eighteen questions were designed to elicit differences in role strain between the regular GED graduates and

dropouts. As with the previous questions, a preliminary chi-square analysis was used to eliminate questions which were not significant. A follow-up chi-square analysis with some of the categories combined to avoid the problem of low expected category frequencies was then performed on those questions which were significant (5 percent level) on the preliminary test.

A significant difference on certain items designed to measure aspects of role strain were found. These items included the following:

1. What is the racial make-up of the groups?
2. Sex?
5. Do you have children? If so, how many?
11. Does anyone assist you with your home chores?
13. Does having to leave your children at home while you attend classes disturb you? If so, to what extent?
17. Did anyone at home discourage you from attending classes? If so, who?
18. How many nights per week on the average do you attend classes?

The results of these statistical analyses seemed to indicate that whether an individual drops out or graduates from a GED program may depend on certain aspects of role strain.

Summary: General Significant Others and
Academic Significant Others--
GED Graduates and Dropouts

The most frequent general significant others for the regular GED graduates were parents and friends, in that particular order, while the academic significant

others were the teachers. In the case of the dropouts, a significant number of the participants did not respond to the questionnaire as related to the general significant others, but it is interesting to note that the dropouts chose the teacher as the most important academic other.

Data Related to V-8 Graduates and
Regular GED Graduates

The questionnaires used to elicit data for the dropouts and the regular GED graduates were also used with the V-8 graduates and the regular GED graduates. These data were as follows:

Research Questions Related to General
Self-Concept of Academic Ability
(V-8 Graduates and Regular
GED Graduates)

Question 1: How do you rate yourself in school ability compared with your close friends?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	-	0	4	1
I am above average	13	3	25	7
I am average	75	18	64	18
I am below average	12	3	7	2
I am the poorest	-	0	-	0
Base	100	(24)	100	(28)

There was no significant difference in response between the regular GED graduates and the V-8 graduates on this question ($X^2 = 3.542$ with 4 degrees of freedom; not

significant at the 5 percent level). None of the category percentages were drastically different, which indicated that this question failed to discriminate between the two groups. Furthermore, the observed cell frequencies were identical in the third category, which contained two-thirds of the data.

Question 2: How do you rate yourself in school ability compared with those in your GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	-	0	-	0
I am above average	17	4	17	5
I am average	79	19	79	22
I am below average	4	1	4	1
I am the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The observed category frequencies were practically identical on this question. The result was a low chi-square ($\chi^2 = 1.211$ with 3 degrees of freedom), which was not significant at the 5 percent significance level.

Question 3: At the end of the GED program, where do you think you would rank in your class, if you finished?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
I am the best	-	0	-	0
I am above average	33	8	25	7
I am average	63	15	75	21
I am below average	4	1	-	0
I am the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Once again the observed category frequencies were close, the expected category frequencies even closer, and the chi-square value, $\chi^2 = 21.914$ (3 degrees of freedom), was not significant at the 5 percent level.

Question 4: Do you think you have the academic ability to complete GED?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	38	9	32	9
Yes	58	14	57	16
Not sure either way	-	0	11	3
No	4	1	-	0
No, definitely	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The almost identical category percentages in the first two categories indicated that this question will not

elicit significantly different responses. The results of the chi-square test confirmed this ($\chi^2 = 4.914$, 3 degrees of freedom; not significant at the 5 percent level).

Question 5: Do you think you have the academic ability to complete college?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	8	2	11	3
Yes	33	8	61	17
Not sure either way	38	9	28	8
No	21	5	-	0
No, definitely	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

Although both the frequencies and percentages differed in category two on this question, and the chi-square value was moderately high ($\chi^2 = 8.669$ with 4 degrees of freedom), it was not high enough to be significant at the 5 percent level. The reason was that the difference between the observed and expected frequencies was not very large, even in the second category.

Question 6: Anyway, where do you think you would rank in your class in college if you go on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	-	0	-	0
Above average	8	2	7	2
Average	75	18	86	24
Below average	17	4	7	2
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The observed category frequencies were close on this question. Notice also that it was the third category which contained most of the responses for both groups. Thus, it was not surprising that the chi-square test failed to find a significant result ($\chi^2 = 1.760$ with 3 degrees of freedom; not significant at the 5 percent level).

Question 7: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. Do you think that you would complete such advanced work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	12	3	7	2
Yes	38	9	29	8
Not sure either way	25	6	32	9
No	25	6	29	8
No, definitely	-	0	3	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

Even the category percentages were very close on this question. The chi-square was very low and nowhere near significant at the 5 percent level ($\chi^2 = 1.846$ with 4 degrees of freedom).

Question 8: Let's forget for a moment how others grade your work. In your own opinion how good do you think your work is?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
My school work is excellent	-	0	4	1
My school work is good	42	10	32	9
My school work is average	54	13	64	18
My school work is below average	4	1	-	0
My school work is much below average	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The chi-square for this question ($\chi^2 = 3.576$ with 4 degrees of freedom) was far too low to be significant at the 5 percent level. The category frequencies were close and none of the percentages differed by more than ten.

Question 9: What kind of grades do you think you are capable of getting if you do your best from now on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	21	5	25	7
Good	46	11	57	16
Average	33	8	18	5
Below average	-	0	-	0
Weak	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The percentages were close in the first two categories, and the observed frequencies were fairly close in all categories. It is not surprising, therefore, that the chi-square was low and not significant at the 5 percent level ($\chi^2 = 1.861$ with 3 degrees of freedom).

Perceived Evaluations of Student's
Academic Ability by Parents

Question 1: How do you think your parents would rate your school ability compared with other students in your GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	13	3	3	1
Above average	29	7	29	8
Average	58	14	61	17
Below average	-	0	-	0
Among the poorest	-	0	-	0
No answer	-	0	7	2
Base	100	(24)	100	(28)

The percentages were very close in categories two and three, which contained most of the data. This indicated a lack of significance, which was verified by the chi-square test ($\chi^2 = 4.294$ with 4 degrees of freedom; not significant at the 5 percent level).

Question 2: If you were in high school, where do you think your parents would say you would rank in your high school graduating class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	8	2	7	2
Above average	42	10	25	7
Average	42	10	64	18
Below average	4	1	-	0
Among the poorest	4	1	4	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

The chi-square value of $\chi^2 = 2.917$ (4 degrees of freedom) was not significant at the 5 percent level. The percentages differed in the second and third categories, and the observed frequencies even differed by eight in category three. However, the observed and expected frequencies never differed by more than about four in any category, and the chi-square value remained low.

Question 3: Do you think your parents would say you have the ability to complete GED and college?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	38	9	21	6
Yes	46	11	64	18
Not sure either way	12	3	7	2
No	4	1	-	0
No, definitely	-	0	-	0
No answer	-	0	8	2
Base	100	(24)	100	(28)

The observed frequencies (and the percentages as well) differed somewhat in the second category. However, as in the above question, the observed or expected frequencies never differed significantly, and the chi-square value of $\chi^2 = 5.209$ (with 4 degrees of freedom) was not significant at the 5 percent level.

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your parents would say it is that you would complete such advanced work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	17	4	4	1
Yes	46	11	43	12
Not sure either way	33	8	43	12
No	4	1	3	1
No, definitely	-	0	-	0
No answer	-	0	7	2
Base	100	(24)	100	(28)

The percentages were close in all categories except the first, which contained only about 10 percent of the data. The numerical value of the chi-square statistic was not too low ($\chi^2 = 5.765$), but with 5 degrees of freedom this value was far from significant at the 5 percent level.

Question 5: What kind of grades do you think your parents would say you are capable of getting in general if you do your best from now on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	38	9	25	7
Good	46	11	46	13
Average	16	4	25	7
Below average	-	0	-	0
Weak	-	0	-	0
No answer	-	0	4	1
Base	100	(24)	100	(28)

The data for both groups looked quite similar on this question in terms of category frequencies and percentages. Thus, a low chi-square would have to be expected, and this was precisely what happened ($\chi^2 = 3.966$ with 4 degrees of freedom; not significant at the 5 percent level).

Perceived Evaluation of Student's Academic
Ability by Wife or Husband

Question 1: How do you think your wife or husband would rate your school ability compared with other students in your GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	21	5	11	3
Above average	37	9	28	8
Average	42	10	61	17
Below average	-	0	-	0
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The frequencies and percentages differed in category three. Once again, it was the fact that the observed and expected frequencies did not differ by much (even in category three), which kept the chi-square ($\chi^2 = 3.923$ with 4 degrees of freedom) from being significant at the 5 percent level.

Question 2: If you were in high school, where do you think your wife or husband would say you would rank in your high school graduating class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	25	6	4	1
Above average	33	8	32	9
Average	42	10	64	18
Below average	-	0	-	0
Among the poorest	-	0	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The comments made above in connection with question 1 applied here as well. This time the chi-square was a little higher ($\chi^2 = 5.428$ with 3 degrees of freedom), but did not approach significance at the 5 percent level.

Question 3: Do you think your wife or husband would say you have the ability to complete GED and college?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	38	9	25	7
Yes	58	14	71	20
Not sure either way	4	1	-	0
No	-	0	-	0
No, definitely	-	0	-	0
No answer	-	0	4	1
Base	100	(24)	100	(28)

Although the percentages and observed frequencies differed somewhat in the second category, the maximum difference between the observed and expected cell frequencies was only slightly greater than three. This kept the chi-square value low ($\chi^2 = 3.841$ with 4 degrees of freedom), and not significant at the 5 percent level.

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your wife or husband would say it is that you would complete such advanced work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	8	2	11	3
Yes	67	16	36	10
Not sure either way	17	4	35	10
No	4	1	18	5
No, definitely	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

On this question the observed frequencies differed by six in both the first and second categories. However, the maximum difference between the observed and expected cell frequencies was again approaching three. The chi-square was higher than on the previous question ($\chi^2 = 8.828$ with 4 degrees of freedom), but not high enough to be significant at the 5 percent level.

Question 5: What kind of grades do you think your wife or husband would say you are capable of getting in general if you do your best from now on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	29	7	36	10
Good	42	10	32	9
Average	25	6	32	9
Below average	-	0	-	0
Weak	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The observed category frequencies and the corresponding percentages were close on this question. The result was a very low chi square ($\chi^2 = 1.886$ with 3 degrees of freedom), which was nowhere near significant at the 5 percent level.

Perceived Evaluations of Student's
Academic Ability by a Friend

Question 1: How do you think this friend would rate your school ability compared with other students in your GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	4	1	14	4
Above average	13	3	14	4
Average	79	19	68	19
Below average	-	0	4	1
Among the poorest	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The percentages were close on this question. It was not surprising that the chi-square test failed to be significant at the 5 percent level ($\chi^2 = 4.043$ with 4 degrees of freedom).

Question 2: If you were in high school, where do you think this friend would say you would rank in your high school graduating class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	8	2	8	2
Above average	17	4	29	8
Average	67	16	63	18
Below average	4	1	-	0
Among the poorest	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The category percentages were very close on this question for category two, where they did not differ much. This indicated a lack of significance which was verified by the chi-square test ($\chi^2 = 3.162$ with 4 degrees of freedom; not significant at the 5 percent level).

Question 3: Do you think that this friend would say you have the ability to complete GED and college?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	17	4	7	2
Yes	71	17	86	24
Not sure either way	8	2	7	2
No	-	0	-	0
No, definitely	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The category percentages and frequencies were not as close on this question as on the previous one.

Nevertheless, they did not differ enough for the chi-square to be significant at the 5 percent level ($\chi^2 = 2.569$ with 3 degrees of freedom).

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this friend would say it is that you would complete such advanced work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	8	2	4	1
Yes	46	11	50	14
Not sure either way	42	10	29	8
No	4	1	14	4
No, definitely	-	0	3	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

The observed category frequencies were very close on this question, which indicated that the responses were not significantly different at the 5 percent level. The chi-square test verified this fact ($\chi^2 = 2.945$ with 5 degrees of freedom).

Question 5: What kind of grades do you think this friend would say you are capable of getting in general if you do your best from now on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	17	4	18	5
Good	46	11	36	10
Average	37	9	43	12
Below average	-	0	-	0
Weak	-	0	3	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

Again the observed frequencies were very close. The maximum difference of four occurred in category three. The chi-square was low ($\chi^2 = 2.667$ with 4 degrees of freedom) and was not significant at the 5 percent level.

Perceived Evaluations of Student's
Academic Ability by a Teacher

Question 1: How do you think this teacher would rate your school ability compared to other students in your GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	-	0	-	0
Above average	4	1	4	1
Average	17	4	-	0
Below average	-	0	-	0
Among the poorest	-	0	-	0
No answer	79	19	89	25
Base	100	(24)	100	(28)

The chi-square value was low and not significant at the 5 percent level ($\chi^2 = 1.184$ with 2 degrees of freedom).

Question 2: If you were in high school, where do you think this teacher would say you would rank in your high school graduating class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Among the best	8	2	3	1
Above average	29	7	25	7
Average	59	14	72	20
Below average	-	0	-	0
Among the poorest	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

The chi-square test did not yield a significant result on this question ($\chi^2 = 2.097$ with 3 degrees of freedom). The observed frequencies differed by six in the third category, but once again it was the relatively small differences between the observed and expected frequencies which kept this result from being significant at the 5 percent level.

Question 3: Do you think that this teacher would say you have the ability to complete the GED program and college?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	12	3	-	0
Yes	46	11	50	14
Not sure either way	38	9	46	13
No	-	0	4	1
No, definitely	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

There were rather large differences in both the frequencies and percentages in category two on this question. However, they were not large enough to offset the close agreement in the other categories, and the chi-square test was not significant at the 5 percent level ($\chi^2 = 3.267$ with 3 degrees of freedom).

Question 4: In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this teacher would say it is that you would complete such advanced work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes, definitely	12	2	-	0
Yes	46	11	50	14
Not sure either way	38	9	46	13
No	-	0	4	1
No, definitely	4	1	-	0
No answer	-	0	-	0
Base	100	(24)	100	(28)

All of the category frequencies and percentages were close on this question. The result was that the chi-square test did not yield significance at the 5 percent level ($\chi^2 = 6.273$ with 4 degrees of freedom).

Question 5: What kind of grades do you think this teacher would say you are capable of getting in general if you do your best from now on?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very good	21	5	21	6
Good	46	11	43	12
Average	29	7	28	8
Below average	-	0	4	1
Weak	4	1	4	1
No answer	-	0	-	0
Base	100	(24)	100	(28)

The percentages on this question were extremely close in all categories. The chi-square value of $\chi^2 = 2.911$ was low for 5 degrees of freedom and far from significant at the 5 percent level.

Research Questions Related to Role Strain
(V-8 Graduates and Regular GED Graduates)

Question 1: Race?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Black	33	8	53	15
White	50	12	29	8
Other	4	1	-	0
No answer	13	3	18	5
Base	100	(24)	100	(28)

The observed frequencies and the percentages were quite different in the first category on this question, and the percentages were never very close. Nevertheless, the

difference in the observed and expected cell frequencies was never extremely high, even in category one, and the resulting chi-square ($\chi^2 = 4.147$ with 3 degrees of freedom) was not significant at the 5 percent level.

Question 2: Sex?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Male	84	20	39	11
Female	8	2	43	12
No answer	8	2	18	5
Base	100	(24)	100	(28)

Drastic differences in the first two categories led to a high chi-square ($\chi^2 = 11.231$ with 2 degrees of freedom) which was significant at both the 5 percent and 1 percent levels.

Question 3: Age?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
17 and under	-	0	-	0
18-24	13	3	32	9
25-34	42	10	25	7
35-44	29	7	11	3
45-54	8	2	11	3
55-64	-	0	-	0
65 and over	-	0	-	0
No answer	8	2	21	6
Base	100	(24)	100	(28)

Only the second category had a large discrepancy in the observed frequencies, although some of the other categories had moderate differences in frequencies. The result was the chi-square which was high ($\chi^2 = 8.491$ with 4 degrees of freedom), but not high enough to be significant at the 5 percent level.

Question 4: Are you married - single - divorced?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Married	96	23	71	20
Single	-	0	21	6
Divorced	4	1	4	1
No answer	-	0	4	1
Base	100	(24)	100	(28)

On this question the category frequencies were close except for the second category. This discrepancy in the second category was enough to make the chi-square value moderately high ($\chi^2 = 6.943$ with 3 degrees of freedom), but not enough to make it significant at the 5 percent level.

Question 5: Do you have children? If so, how many?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
None	4	1	29	8
1	42	10	14	4
2	17	4	14	4
3	25	6	21	6
4	4	1	-	0
5	8	2	7	2
6	-	0	4	1
7	-	0	-	0
8 or more	-	0	7	2
No answer	-	0	4	1
Base	100	(24)	100	(28)

Despite large differences in the first two categories, the responses for the other categories were more or less the same, and the chi-square, while high ($\chi^2 = 13.093$), was not high enough to be significant at the 5 percent level with 7 degrees of freedom.

On this question it appeared that significance was lost by having too many categories. If only the presence or absence of child was considered, the 2 x 2 table was as follows:

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
No children	4	1	29	8
Children	96	23	71	20
Base	100	(24)	100	(28)

When analyzed the chi-square value was $\chi^2 = 3.808$ (with 1 degree of freedom), which was significant at the 5 percent level.

Question 6: What are the ages of your children?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Below school age	33	8	21	6
K-8 (grade)	16	4	11	3
High school 9-12 (grade)	13	3	7	2
College age 18-22 (age)	8	2	-	0
Over 21	-	0	4	1
Below school age, K-8	13	3	11	3
Below school age, K-8, High school, 9-12	12	3	14	4
None	4	1	7	2
No answer	-	0	25	7
Base	100	(24)	100	(28)

On this question the category frequencies looked similar for all categories except the no-response category. The chi-square value, while high, was not significant at the 5 percent level ($\chi^2 = 11.657$ with 8 degrees of freedom).

Question 7: With whom do you live?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Spouse	88	21	50	14
Parent	-	0	78	2
Friend	-	0	3	1
Relative	-	0	4	1
Other	-	0	18	5
No answer	12	3	18	5
Base	100	(24)	100	(28)

There were large differences in the responses of the two groups in the first and fifth categories, but the other categories were more or less the same, and the results were not significant at the 5 percent level ($\chi^2 = 9.306$ with 5 degrees of freedom).

This question, like question 5, was one in which there were too many categories. If the number of categories were reduced to three, the following table would be obtained:

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Spouse	88	21	50	14
Other	-	0	32	9
No answer	12	3	18	5
Base	100	(24)	100	(28)

Now there was a significant difference in response at the 1 percent significance level ($\chi^2 = 10.655$ with 2 degrees of freedom).

Question 8: How many hours per week do you work?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
8 hours or less	-	0	3	1
9-16	-	0	3	1
17-24	-	0	4	1
25-40	38	9	25	7
41-54	54	13	29	8
54 plus	8	2	4	1
None	-	0	14	4
No answer	-	0	18	5
Base	100	(24)	100	(28)

This was another question in which the chi-square was high ($\chi^2 = 9.750$) but the large number of degrees of freedom (7) kept it from being significant at the 5 percent level. A glance at the data indicated that the last two categories contributed most to the magnitude of the chi-square statistic.

Question 9: Would you say that holding a job plus having the responsibility of running your home hinders you from performing better in the GED classes? If so, how much?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Does not hinder	38	9	54	15
A little	33	8	11	3
Very little	17	4	4	1
Much	4	1	4	1
Very much	8	2	7	2
No answer	-	0	20	6
Base	100	(24)	100	(28)

On the preliminary analysis a chi-square of 11.332 was obtained (with 5 degrees of freedom), which was significant at the 5 percent level. When this question was reanalyzed with the fourth and fifth rows combined to avoid having expected cell frequencies less than two, the chi-square value remained the same, but the degrees of freedom were reduced to four. The differences were still significant at the 5 percent level. Large differences in responses in the first, second, and last categories accounted for these differences.

Question 10: Do you have a babysitter?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	17	4	25	7
No	79	19	54	15
No answer	4	1	21	6
Base	100	(24)	100	(28)

The responses on this question were not particularly close in any category. The result was a chi-square value of 4.580, which was not enough to be significant at the 5 percent level.

Question 11: Does anyone assist you with your home chores?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	50	12	36	10
No	46	11	43	12
No answer	4	1	27	6
Base	100	(24)	100	(28)

The responses to this question were close except in the third category, which was the no-response category. The chi-square statistic equaled 2.038 with 2 degrees of freedom, which was not significant at the 5 percent level.

Question 12: Do any of your children ask you to remain home with them at night instead of going to classes?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	-	0	21	6
No	87	21	61	17
No answer	13	3	18	5
Base	100	(24)	100	(28)

On this question, the response was quite different in the first (yes) category. This difference was enough to cause the chi-square test to yield a significant result at the 5 percent level ($\chi^2 = 7.480$ with 2 degrees of freedom).

Question 13: Does having to leave your children at home while you attend classes disturb you? If so, to what extent?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Does not disturb	58	14	57	16
Very much	4	1	-	0
Not so much	-	0	4	1
Not at all	8	2	10	3
A little	17	4	25	7
No answer	13	3	25	7
Base	100	(24)	100	(28)

On this question the two groups responded with fairly similar frequencies in all categories. The chi-square was 4.975, which was low and not significant at the 5 percent level.

Question 14: Which statement describes your work load between the hours you leave work and the time you arrive at GED class?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Very heavy	8	2	11	3
Heavy	29	7	21	6
Light	25	6	25	7
Very light	25	6	25	7
No answer	13	3	18	5
Base	100	(24)	100	(28)

The category percentages for the two groups were extremely close in all categories. The chi-square value was low ($\chi^2 = 2.051$ with 4 degrees of freedom) and not significant at the 5 percent level.

Question 15: Do you rest before going to GED classes?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Yes	58	14	40	11
No	38	9	46	13
No answer	4	1	14	4
Base	100	(24)	100	(28)

The similarity of the responses of the two groups was less striking on this question than on the previous one, but there were no great dissimilarities in any of the three categories. The chi-square test was not significant at the 5 percent level ($\chi^2 = 3.406$ with 2 degrees of freedom).

Question 16: Describe your physical condition in class on the average class night.

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Tired	17	4	14	4
Very tired	4	1	7	2
Not tired at all	46	11	32	9
Fairly tired	33	8	39	11
No answer	-	0	8	2
Base	100	(24)	100	(28)

The category percentages were fairly close on this question, which was a good indication that the chi-square would not be significant. A chi-square value of 3.753 with 4 degrees of freedom verified this by failing to be significant at the 5 percent level.

Question 17: Did anyone at home discourage you from attending classes? If so, who?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Nobody discouraged attendance	56	13	89	25
Spouse	40	10	-	0
Parent	-	0	-	0
Friend	-	0	4	1
Relative	-	0	-	0
Other	-	0	-	0
No answer	4	1	7	2
Base	100	(24)	100	(28)

On the preliminary test the chi-square value was 14.903 with 3 degrees of freedom, which was significant at

the 5 percent and 1 percent levels. Because of extremely low expected frequencies in the third and fourth categories, the last three rows were combined to form the following 2 x 2 table:

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
No discouragement	56	13	89	25
Discouragement from some source or no answer	44	11	11	3
Base	100	(24)	100	(28)

A glance at the above table showed rather drastic differences in group responses even without chi-square analysis. The chi-square value of 6.414 (with 1 degree of freedom), while much lower than on the preliminary analysis, was still large enough to be significant at the 5 percent level.

Question 18: How many nights per week on the average do you attend classes?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
One	46	11	43	12
Two	54	13	39	11
Three	-	0	4	1
Four	-	0	-	0
Five	-	0	4	1
Over five	-	0	-	0
No answer	-	0	10	3
Base	100	(24)	100	(28)

On this question the chi-square test yielded a value of 4.932 with 4 degrees of freedom, which was not significant at the 5 percent level. This appeared to be one of those tables in which combining some rows (in this case all but the first two) would reduce the degrees of freedom without substantially reducing the chi-square value, and thus improving the chance of finding a statistically significant result. However, since the preliminary value of $\chi^2 = 4.932$ would fail to be significant at the 5 percent level even with 2 degrees of freedom, no follow-up analysis was performed. The extremely close agreement in the first two categories removed all chance of a significant result.

Research Questions Related to General
Significant Others and Academic
Significant Others: V-8 Graduates
and Regular GED Graduates

Question 1: Who are the general significant others for the V-8 graduates?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Spouse	14		14	
Teacher	14		9	
Parent	39		26	
Friend	15		22	
Sister	7		2	
Brother	6		5	
Minister	0		4	
No answer	5		18	
Base	100	(24)	100	(28)

For both groups of graduates the parent was the general significant other followed by the friend and spouse. It is interesting to note that the data for both groups seemed to be quite similar. One exception was that 13 percent included brother/sister for the V-8 graduates, while only 7 percent for the regular GED graduates.

Question 2: Who are the academic significant others for the V-8 graduates?

	<u>V-8 Graduates</u>		<u>Regular GED Graduates</u>	
	%	Frequency	%	Frequency
Teachers	64		57	
Spouse	10		10	
Friend	9		14	
No answer	17		19	
Base	100	(24)	100	(28)

The academic significant other for both groups was the teacher by far. Spouses and friends did not play as an important part.

Summary--Regular GED Graduates and V-8 Graduates

General Self-Concept of Academic Ability

The first questionnaire examined the self-concept of academic ability between the V-8 graduates and the regular GED graduates. The V-8 graduates were the students who upon completion of the GED program were promised an apprenticeship. In the nine questions asked on self-concept of academic

ability, none of them was found to be statistically significant.

Perceived Evaluations of
Student's Academic Ability
by Parents

In the five questions asked on perceived evaluations of student's academic ability by parents, none of the questions was found to be statistically significant.

Perceived Evaluations of
Student's Academic Ability
by Wife or Husband

In the five questions asked on perceived evaluations of student's academic ability by wife or husband, none of the questions was found to be statistically significant.

Perceived Evaluations of
Student's Academic Ability
by a Friend

In the five questions asked on perceived evaluations of student's academic ability by a friend, none of the questions was found to be statistically significant.

Perceived Evaluations of
Student's Academic Ability
by a Teacher

In the five questions asked on perceived evaluations of student's academic ability by a teacher, none of the questions was found to be statistically significant.

Summary--Role Strain Questions:
Regular GED and V-8 Graduates

Of the eighteen role strain questions, only questions 2 and 12 were statistically significant at the 5 percent level on the preliminary analysis. These questions were not reanalyzed since the problem of excessively low expected cell frequencies did not arise in the initial analysis of these questions. When questions 5, 7, 9, and 17 were reanalyzed with the appropriate rows combined, they became significant at the 5 percent level.

Usually when the preliminary test failed to yield a significant result, no further testing was conducted since combining cells tended to lower the chi-square. However, it also lowered the degrees of freedom and this sometimes resulted in significance which would have been missed on the preliminary analysis. This was particularly true when there was a large number of low-frequency categories. This was found to be true in questions 5, 7, 9, and 17. For example, in question 5, the respondent was asked if he had any children, and if so, how many. When the responses to this question were placed into two categories (children or no children) the chi-square was significant at the 5 percent level. In question 7, the respondent was asked whom he lived with and the largest mode was spouses. When all responses other than spouse were combined in one category, the chi-square was significant at the 1 percent level. The same statistical treatment was done with questions 9 and 17.

From the results of the statistical analysis, it appeared that the role strain factors on which the regular GED graduates and the V-8 graduates differed significantly were those of sex, children, residence, job factor, whether children wanted them to remain home, and whether or not the student was discouraged from attending GED classes. All other factors related to role strain were not found to be statistically significant.

Summary--General Significant Others and
Academic Significant Others: Regular
GED Graduates and V-8 Graduates

Parents by far were the general significant others for both the V-8 graduates and the regular GED graduates, while the teacher was the academic significant other.

Summary of Chapter

For the purposes of summarization, each hypothesis is listed and conclusions for each are stated.

Hypothesis I: The GED graduates will score higher than dropouts on items designed to measure general self-concept of ability.

Nine questions were included in this questionnaire, and on only one question did the GED graduates score significantly higher than the dropouts; namely, the GED graduates felt they were average or above average in class rank. On the remaining eight questions there was found to be no statistical significance between the GED graduates and the dropouts.

Hypothesis II: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by parents.

Of the five questions asked of the students, only one question was found to be statistically significant; namely, the GED graduates felt their parents believed they could complete four years of college and then continue in graduate school in a professional school. In the remaining four questions, there was no statistical significance between the GED graduates and the dropouts.

Hypothesis III: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a wife or husband.

Five questions were included in this section, and all were found not to be statistically significant. The wife or husband seemed to be the person who did not believe that the GED student could succeed in whatever academic path the student chose to follow.

Hypothesis IV: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a friend.

Five questions were included in this questionnaire, and only one was found to be statistically significant. The statement showed that the GED student felt his friend believed he could achieve good grades. The remaining four questions were not statistically significant.

Hypothesis V: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a teacher.

Only one of the five questions was found to be statistically significant. The GED graduates felt their teachers believed they could complete four years of college and then continue with graduate studies. In the remaining four questions the data showed no significance.

Hypothesis VI: The GED graduates will experience a lower role strain than dropouts in the same program.

Eighteen questions were included in this questionnaire to determine role strain between the regular GED graduates and the dropouts. The data showed statistical significance on the following items: (1) racial make-up of the students in the GED program, (2) sex, (5) number of children, (11) assistance with home chores, (13) mental state of student who leaves children at home while at school, (17) discouragement from persons at home, and (18) number of nights student attends classes. GED graduates seemed to experience role strain as related to the above questions, but in the remaining eleven questions there was no statistical significance between the GED graduates and the dropouts.

Hypothesis VII: The V-8 graduates will score significantly higher than regular GED graduates on items to measure general self-concept of ability.

Nine questions were asked of the students as related to general self-concept of ability, and none was found to be statistically significant.

Hypothesis VIII: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by parents.

Five questions were asked of the students as related to perceived evaluations of student's academic ability by parents, and none was found to be statistically significant.

Hypothesis IX: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluation of student's academic ability by a wife or husband.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a wife or husband, and none was found to be statistically significant.

Hypothesis X: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a friend.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a friend, and none was found to be statistically significant.

Hypothesis XI: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a teacher.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a teacher, and none was found to be statistically significant.

Hypothesis XII: The V-8 graduates will have a lower role strain than regular GED graduates.

Eighteen questions were asked of the students as related to role strain. It was found that the V-8 graduates had a lower role strain in the following areas:

(2) Male and female V-8 graduates experienced a lower role strain than male and female GED graduates, (5) V-8 graduates with children experienced a lower role strain than the GED graduates, (7) V-8 graduates experienced a lower role strain living with their spouses than did the GED graduates, (9) V-8 graduates experienced a lower role strain when they held a job plus having the responsibility of running a home than did the GED graduates, (12) V-8 graduates experienced a lower role strain when their children asked them to remain home with them at night instead of going to classes than did the GED graduates, and (17) V-8 graduates experienced a lower role strain when anyone at home discouraged them from attending classes than did the GED graduates.

The following research questions were examined for the GED graduates, the dropouts, and the V-8 graduates: Who are the student's academic significant others? and Who are the student's general significant others? The GED

graduates' academic significant others were the teachers, while the academic significant others for the dropouts were also the teachers. For the V-8 group, the academic significant others were the teachers. All three groups chose the teachers as their academic significant others.

The GED graduates' general significant others were the parents and friends, in that order, whereas the dropouts did not respond to this question. In the case of the V-8 graduates the general significant others were the parents. Both the GED graduates and the V-8 graduates chose the parents as their most important general significant others.

The final chapter is devoted to a concise summary of the research, conclusions, implications, and suggestions for further study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This final chapter is devoted to a summary of the study, followed by a discussion of the conclusions generated from the analysis of the data, and concluded with recommendations for further research.

Summary

Purposes of the Study

1. The first purpose of the study was to determine if GED graduates will score higher than dropouts on items designed to measure general self-concept of ability.

2. The second purpose of the study was to determine if GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by parents.

3. The third purpose of the study was to determine if GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a wife or husband.

4. The fourth purpose of the study was to determine if GED graduates will score significantly higher than

dropouts on the perceived evaluations of student's academic ability by a friend.

5. The fifth purpose of the study was to determine if GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a teacher.

6. The sixth purpose of the study was to determine if the GED graduates experience a lower role strain than dropouts in the same program.

7. The seventh purpose of the study was to determine if V-8 graduates will score significantly higher than regular GED graduates on items to measure general self-concept of ability.

8. The eighth purpose of the study was to determine if V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by parents.

9. The ninth purpose of the study was to determine if V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluation of student's academic ability by a wife or husband.

10. The tenth purpose of the study was to determine if V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluation of student's academic ability by a teacher.

12. The twelfth purpose of the study was to determine if V-8 graduates have a lower role strain than regular GED graduates.

13. The thirteenth purpose of the study was to determine the student's academic significant others and the student's general significant others for the regular GED graduates, the dropouts, and the V-8 graduates.

Limitations of the Study

1. As is true of any study, the validity of the study is affected by the degree of frankness and sincerity of response to the instrument administered.

2. The setting for the project was a single sixteen-week term in the GED program in Flint, Michigan.

3. The study was limited to the 1972 winter term and to those students who registered for that term.

4. Any discerned relationships of significance between varying levels of self-concept of academic ability and role strain of graduates as opposed to those of dropouts are to viewed as correlational and not causal.

Review of Literature

The general areas of interest in this study were (a) role strain in general--especially with regard to motivation, role set, and normative processes by which individuals allocated their existing energies to various role demands; and (b) the composition nature, operation, and motivating

power of the relationship between one's self-concept of academic ability, on the one hand, and actual academic achievement on the other.

The literature related to role strain indicated the following: that the values, ideals, and role obligations of every individual are at times in conflict, thereby causing role strain, and that role conflict was a major deterrent to students' success in the GED program.

The literature related to self-concept indicated the following: (1) The development of an individual's self-concept of academic ability, as well as the relationship of self-concept to actual academic achievement, has received abundant attention and research from social psychologists and educators. (2) The research supported the notion that the success of students in a GED program--as well as failure--appeared increasingly to coincide with what the students expected of themselves. (3) The research indicated that the GED student's interpretation of his teacher's academic expectations of him was relevant to his success or failure in the GED program. (4) The research implied that teacher training programs needed to focus more attention on training teachers in the art of helping students improve their self-concept of academic ability, rather than placing the stress on academic subject matter.

Design of the Study

The study instrument was a six-part instrument used by Wilbur Brookover and his associates in continued studies of various aspects of self-concept of academic ability and school performance. The questionnaire consisted of the following sections: (1) general self-concept of academic ability, (2) perceived evaluation of student's academic ability by parents, (3) perceived evaluations of student's academic ability by wife or husband, (4) perceived evaluations of student's academic ability by friend, (5) perceived evaluations of student's academic ability by teacher, (6) role strain among adults, and (7) student's academic significant others and student's general significant others.

A new section was added which made for a seven-part questionnaire. The section on perceived evaluations of a student's academic ability by wife or husband was added using the same form of questions as used in examining perceived evaluations of a student's academic ability by parents, friend, or teacher. Other changes included changing the words "compared with other students your age" to "compared with other students in your GED class" and in the general self-concept of ability scale the following question was added: "Do you think you have the academic ability to complete GED?"

Seventy-six adults who registered for the 1972 Flint GED winter term composed the sample for this study.

The typical student was an adult between the ages of eighteen and twenty-four, married, and with at least one child. The majority of the students were male, white, and held full-time jobs, while the remaining group held part-time jobs. Specifically, in this study, the GED students included twenty-eight whites and twenty-four blacks, while in the V-8 program there were twelve whites and eight blacks. Four of the participants in the V-8 program did not indicate their race.

Among the registrants were twenty-four assembly line workers employed at the Flint General Motors V-8 plant. This group provided a separate sample because they were promised an opportunity to enter an apprenticeship program after completion of the GED program.

Responses to the study instrument were obtained from the V-8 graduates, regular GED graduates, and the dropouts at the termination of the term. All students were encouraged to continue in their studies through counseling services.

Data from the completed study instrument were processed by the computer at the end of the term for computation purposes.

Summary of Findings

For the purposes of summarization, each hypothesis is listed and conclusions for each are stated.

Hypothesis I: The GED graduates will score higher than dropouts on items designed to measure general self-concept of ability.

Nine questions were included in this questionnaire, and on only one question did the GED graduates score significantly higher than the dropouts; namely, the GED graduates felt they were average or above average in class rank. On the remaining eight questions there was found to be no statistical significance between the GED graduates and the dropouts.

Hypothesis II: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by parents.

Of the five questions asked of the students, only one question was found to be statistically significant; namely, the GED graduates felt their parents believed they could complete four years of college and then continue in graduate school in a professional school. In the remaining four questions, there was no statistical significance between the GED graduates and the dropouts.

Hypothesis III: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a wife or husband.

Five questions were included in this section, and all were found not to be statistically significant. The wife or husband seemed to be the person who did not believe

that the GED student could succeed in whatever academic path the student chose to follow.

Hypothesis IV: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a friend.

Five questions were included in this questionnaire, and only one was found to be statistically significant. The statement showed that the GED student felt his friend believed he could achieve good grades. The remaining four questions were not statistically significant.

Hypothesis V: The GED graduates will score significantly higher than dropouts on the perceived evaluations of student's academic ability by a teacher.

Only one of the five questions was found to be statistically significant. The GED graduates felt their teachers believed they could complete four years of college and then continue with graduate studies. In the remaining four questions the data showed no significance.

Hypothesis VI: The GED graduates will experience a lower role strain than dropouts in the same program.

Eighteen questions were included in this questionnaire to determine role strain between the regular GED graduates and the dropouts. The data showed statistical significance on the following items: (1) racial make-up of the students in the GED program, (2) sex, (5) number of

children, (11) assistance with home chores, (13) mental state of student who leaves children at home while at school, (17) discouragement from persons at home, and (18) number of nights student attends classes. GED graduates seemed to experience role strain as related to the above questions, but in the remaining eleven questions there was no statistical significance between the GED graduates and the dropouts.

Hypothesis VII: The V-8 graduates will score significantly higher than regular GED graduates on items to measure general self-concept of ability.

Nine questions were asked of the students as related to general self-concept of ability, and none was found to be statistically significant.

Hypothesis VIII: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by parents.

Five questions were asked of the students as related to perceived evaluations of student's academic ability by parents, and none was found to be statistically significant.

Hypothesis IX: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluation of student's academic ability by a wife or husband.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a wife or husband, and none was found to be statistically significant.

Hypothesis X: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a friend.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a friend, and none was found to be statistically significant.

Hypothesis XI: The V-8 graduates will score significantly higher than regular GED graduates on the perceived evaluations of student's academic ability by a teacher.

Five questions were asked of the students as related to the perceived evaluations of student's academic ability by a teacher, and none was found to be statistically significant.

Hypothesis XII: The V-8 graduates will have a lower role strain than regular GED graduates.

Eighteen questions were asked of the students as related to role strain. It was found that the V-8 graduates had a lower role strain in the following areas:

(1) Male and female V-8 graduates experienced a lower role strain than male and female GED graduates, (5) V-8 graduates with children experienced a lower role strain than the GED graduates, (7) V-8 graduates experienced a lower role strain living with their spouses than did the GED graduates, (9) V-8 graduates experienced a lower role strain when they held a job plus having the responsibility of running a home

than did the GED graduates, (12) V-8 graduates experienced a lower role strain when their children asked them to remain home with them at night instead of going to classes than did the GED graduates, and (17) V-8 graduates experienced a lower role strain when anyone at home discouraged them from attending classes than did the GED graduates.

The following research questions were examined for the GED graduates, the dropouts, and the V-8 graduates: Who are the student's academic significant others? and Who are the student's general significant others? The GED graduates' academic significant others were the teachers, while the academic significant others for the dropouts were also the teachers. For the V-8 group, the academic significant others were the teachers. All three groups chose the teachers as their academic significant others.

The GED graduates' general significant others were the parents and friends, in that order, whereas the dropouts did not respond to this question. In the case of the V-8 graduates the general significant others were the parents. Both the GED graduates and the V-8 graduates chose the parents as their most important general significant others.

Implications and Recommendations

Adult students in GED programs have dropped out of high school for a variety of reasons. Many of the reasons

are still existent for the student and even being reinforced by the time an individual returns to schooling in a GED program.

Most socially, economically, and culturally disadvantaged dropouts who return to school are motivated by desires such as a better job, a decent or better standard of living, or just to be a productive member of society and in control of their own lives.

They return to school, for the most part, when they are still relatively young and have discovered that there are virtually no jobs for those without at least a high school education. Often they are married and have small children, or are divorced or separated from partners and left with preschool children, insufficient income, and insufficient education, training, or skills to either improve their economic position or prevent it from deteriorating completely. All "rescue" programs depend on the ability of the individual to achieve education and/or training, and it is at this point that self-concept of ability and role strain become crucial in the student's plans for the future.

As the literature pointed out, the individual student may face different types of role demands and conflicts which he feels as "role strain" when he wishes to carry out specific obligations. In the eighteen items included in the role strain questionnaire, the GED graduate experienced less

role strain in seven of the eighteen items. It is interesting to note that despite a number of demands and conflicts (eleven items) the GED graduates overcame these apparent problems to them. Too often conclusions are made that to succeed in a project or program the student has to have lower role strain. This study showed that a student could have a number of demands and conflicts and still graduate from the GED program. But despite these successes, every effort must be made to provide solutions to avoid as much role strain as possible. For example, child care centers could be available to assist mothers of dependent children, who generally constitute a large segment of GED registrations.

Another set of conclusions was presented and related to the GED graduates and the V-8 graduates. The latter group also completed the GED program but were promised apprenticeships at the termination of the GED program. Nine questions were asked on general self-concept of ability and none of the questions was found to be statistically significant. Apparently, holding a "carrot" such as an apprenticeship did not affect the data. It may be concluded that the goal of completing the GED program was ample reward for both groups.

In the examination of the perceived evaluations of a student's academic ability by others such as parents, wife

or husband, friend, or teacher there were no significant differences between the GED graduates and the V-8 graduates.

Many of the studies as reported in Chapter II point out the need for a good self-concept if a student is to succeed in his academic work. The findings in this study do not support this point of view. When the GED graduates and the dropouts were measured on general self-concept of ability there was found to be no significant difference between the two groups except that the GED graduates felt that they would be on an average or above average level in class rank.

Despite these findings one should be concerned with the loss of those students who drop out of the GED program. It seems that there may be a need for more extensive counseling with the dropouts to prevent their loss. Provisions for financial assistance may help in keeping such students in the GED program.

Brookover¹ postulated that self-concept results from expectations and evaluation held by significant others as perceived by the student. When the data were analyzed in terms of the perceived evaluations of a student's academic ability by significant others such as parent, wife or husband, teacher, or friend there was no clear-cut statistical significance for each of the five questions included for each

¹Brookover, Erickson, and Joiner, Self-Concept, p. iii.

significant other. There was significance found in only the following questions: (1) GED graduates felt that their parents believed they could complete four years of college and then continue in graduate school, (2) GED graduates felt their friends believed they could achieve good grades, and (3) GED graduates felt their teachers believed they could complete four years of college and then continue with graduate studies. There was no statistical significance found in the questions related to wife or husband.

In role strain data, the V-8 group experienced lower role strain than the GED graduates in six of the eighteen questions asked. Questions related to home and children seemed to present less trouble to the V-8 graduate. Again, it seems that some provisions can be made such as child care centers, and funds for babysitting. These provisions would enable the GED graduate to avoid some of the role strain being experienced by that group.

Brookover² stated he believed that parents, friends, and teachers will have their greatest influence over the academic behavior of the student. The findings of this study were consistent with Brookover's statement. All three groups, GED graduates, V-8 graduates and dropouts, stated that their academic significant other was the teacher, while both the GED graduates and V-8 graduates stated that

²Ibid., pp. 16-17.

the general significant other was the parent. Teachers should be aware of these findings so that they recognize the important role they do play in helping students not only in school, but in special programs such as GED. Better and improved counseling should help students recognize their strengths and weaknesses, but more importantly, to give the student a feeling that he can succeed. Students will succeed if they believe in themselves and feel that significant others believe, too, that they can succeed.

Parents need to recognize the important role they play in the guidance of their offspring. Too often there is a feeling of frustration on the part of parents that they are not important to their children. The above data showed that students do care what their parents believe about them.

Questions for Further Study

1. To what extent will the self-concept of academic ability be improved in students when teachers are specially trained in this area?
2. To what extent will the self-concept of academic ability and role strain be improved if other factors such as paid tuition and a stipend are included for students in the GED program?
3. Would the replication of this study with the use of a larger sample size produce significantly different results?

4. Would a sampling in which more women were included have more significant results as related to self-concept of academic ability and role strain?

5. To what extent would improving the self-concept of academic ability among adult students decrease the drop-out rate among adults enrolled in GED programs?

Reflections

The experience of conducting this study has increased my perception of the problems facing adult educators as well as the students that attend adult education classes. It is evident to me that there is need for gross change.

The findings of this study have made me somewhat pessimistic about the future of adult education. In order to bring about the changes needed in adult education, it is going to require a total commitment on the part of many--the federal government, the school boards, the school administrators, the teachers, and the general public. Currently, I do not believe this commitment exists among the aforementioned groups. I have talked to members of the various groups, and most are of the opinion that too much emphasis is being placed on adult education and not enough on pre-school through grade twelve.

It is the writer's opinion that until the technology of education, specifically adult education, becomes more attuned to the total needs of the individual, meaningful

results are not within the realm of probability. The time for dialogue has ended. The time for commitment has begun.

I would strongly suggest that another statistical analysis be employed which looks at an average of the means, i.e., of each hypothesis, so as to have a total score for self-concept, and a total score for role strain. These data would enable the reader to determine significance or nonsignificance for each hypothesis.

APPENDICES

APPENDIX A

QUESTIONNAIRE

APPENDIX A

QUESTIONNAIRE

SELF-CONCEPT OF ABILITY--GENERAL

Circle the letter in front of the statement which best answers each question.

1. How do you rate yourself in school ability compared with your close friends?
 - a. I am the best
 - b. I am above average
 - c. I am average
 - d. I am below average
 - e. I am the poorest
2. How do you rate yourself in school ability compared with those in your G.E.D. class?
 - a. I am the best
 - b. I am above average
 - c. I am average
 - d. I am below average
 - e. I am the poorest
3. At the end of the G.E.D. program, where do you think you would rank in your class, if you finished?
 - a. I am the best
 - b. I am above average
 - c. I am average
 - d. I am below average
 - e. I am the poorest
4. Do you think you have the academic ability to complete G.E.D.?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely

5. Do you think you have the academic ability to complete college?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
6. Anyway, where do you think you would rank in your class in college if you go on?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
7. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. Do you think that you would complete such advanced work?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
8. Let's forget for a moment how others grade your work. In your own opinion how good do you think your work is?
 - a. My school work is excellent
 - b. My school work is good
 - c. My school work is average
 - d. My school work is below average
 - e. My school work is much below average
9. What kind of grades do you think you are capable of getting if you do your best from now on?
 - a. Very good
 - b. Good
 - c. Average
 - d. Below average
 - e. Weak

Please answer the following questions as you think your parents would answer them:

PERCEIVED EVALUATIONS OF STUDENT'S
ACADEMIC ABILITY BY PARENTS

1. How do you think your parents would rate your school ability compared with other students in your G.E.D. class?
 1. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. If you were in high school, where do you think your parents would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that your parents would say you have the ability to complete G.E.D. and college?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your parents would say it is that you would complete such advanced work?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely

5. What kind of grades do you think your parents would say you are capable of getting in general if you do your best from now on?
- a. Very good
 - b. Good
 - c. Average
 - d. Below average
 - e. Weak

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC
ABILITY BY WIFE OR HUSBAND

1. How do you think your wife or husband would rate your school ability compared with other students in your G.E.D. class?
- a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. If you were in high school, where do you think your wife or husband would say you would rank in your high school graduating class?
- a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that your wife or husband would say you have the ability to complete G.E.D. and college?
- a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely

4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think your wife or husband would say it is that you would complete such advanced work?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
5. What kind of grades do you think your wife or husband would say you are capable of getting in general if you do your best from now on?
 - a. Very good
 - b. Good
 - c. Average
 - d. Below average
 - e. Weak

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC
ABILITY BY FRIEND

1. How do you think this friend would rate your school ability compared with other students in your G.E.D. class?
 1. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. If you were in high school, where do you think this friend would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest

3. Do you think that this friend would say you have the ability to complete G.E.D. and college?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this friend would say it is that you would complete such advanced work?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
5. What kind of grades do you think this friend would say you are capable of getting in general if you do your best from now on?
 - a. Very good
 - b. Good
 - c. Average
 - d. Below average
 - e. Weak

PERCEIVED EVALUATIONS OF STUDENT'S ACADEMIC
ABILITY BY A TEACHER

1. How do you think this teacher would rate your school ability compared to other students in your G.E.D. class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest

2. If you were in high school, where do you think this teacher would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that this teacher would say you have the ability to complete the G.E.D. program and college?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
4. In order to become a doctor, a lawyer, an engineer or a university professor, work beyond four years of college is necessary. How likely do you think this teacher would say it is that you would complete advanced work?
 - a. Yes, definitely
 - b. Yes
 - c. Not sure either way
 - d. No
 - e. No, definitely
5. What kinds of grades do you think this teacher would say you are capable of getting in general if you do your best from now on?
 - a. Very good
 - b. Good
 - c. Average
 - d. Below average
 - e. Weak

ROLE STRAIN AMONG ADULTS

1. Race _____ 2. Sex _____ 3. Age _____
4. Are you married () single () divorced ()
5. Do you have children? _____ If so, how many? _____
6. What are the ages of your children? _____

7. With whom do you live? _____
8. How many hours per week do you work? _____
9. Would you say that holding a job, plus having the responsibility of running your home hinders you from performing better in the GED classes? _____ If so, how much?
Little () Very little () Much () Very much ()
10. Do you have a babysitter? _____
11. Does anyone assist you with your home chores? _____
12. Do any of your children ask you to remain home with them at night instead of going to classes? _____
13. Does having to leave your children at home while you attend classes disturb you? _____ If so, to what extent?
Very much () Not so much () Not at all ()
A little ()
14. Which statement describes your work load between the hours you leave work and the time you arrive at G.E.D. class? Very heavy () Heavy () Light ()
Very light ()
15. Do you rest before going to G.E.D. classes? _____
16. Describe your physical condition in class on the average class night. Tired () Very tired ()
Not tired at all () Fairly tired ()
17. Did any one at home discourage you from attending classes? _____ If so, who? _____
18. How many nights per week on the average do you attend classes? _____

General Reference Group(s) Questions

There are many people who are important in our lives. In the space below, list the names of the people whose appreciation and judgment are important to you. Please indicate who each person is.

<u>Name</u>	<u>Who is this person?</u>
_____	_____
_____	_____
_____	_____
_____	_____

Academic Reference Group(s) Question

There are many people who are concerned about how well you do in school. In the space below, list the names of the people who are important to you in appreciating and judging your school work. Please indicate who each person is.

<u>Name</u>	<u>Who is this person?</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

APPENDIX B

LETTER

APPENDIX B

LETTER

FOCUS
HEART IN THE CITY
729 E. Stewart
Flint, Mich. 48505

TO: Mott Intern making the study of adults attending
G.E.D. Classes.

Dear Sir:

Enclosed is all the information that I have on the people that have attended the two sessions of this years G.E.D. Classes. I would be very interested in hearing about your conclusions from your study. I have been doing a private study on this for the three years I have been working with the G.E.D. Classes and do believe that in many instances lack of perserverance is the major factor in this area. The people need strong motivation and some very good and practical guidance as to were [sic] they are going in life.

Every time a person misses a class they are called. Many realize their absence was not necessary but they will fall into the same pattern a few weeks later. Some have one excuse after another--they need transportation--we will make arrangements for this--we do--they come for a few weeks then find another excuse. True some reasons are real and if we can help by providing transportation, getting a baby-sitter etc. we do work on getting volunteers to help in this area.

I also do not believe that just working strictly with G.E.D. classes is the answer in this area. Many of our people come for varied reasons other than wanting to take the test. Enclosed also are the goals and objectives of the Heart in the City G.E.D. Adult Classes. If the people can leave us with a little more confidence in their ability, a better self image, a feeling that they have a place in life then I think we have accomplished more than any certificate has or ever will do.

Thank you for your interest. I'm certainly anxious to hear of your findings.

Thank you.
Sincerely,
S. Jeanette Puchocki

FOCUS: ADULT EDUCATION
1971-1972

GOALS:

To provide opportunities for all people to receive a diploma if they so desire.
To encourage growth through study.
To point out that learning can be practical, rewarding, and worthwhile.
To help raise the self-image of many adults who have dropped out of high school and now feel they are failures.
To show these people that many people still do care about others.

OBJECTIVES:

Set-up 3 sessions, 13 weeks each of review classes in Math, Reading, and English to help prepare the adults of the area that have dropped out of High School to take the G.E.D. Test that will give them their diploma.

To find out what level these adults must begin on in order to pass the G.E.D. Test. This is done by giving a placement test and then grouping according to their ability.

To help these adults develop a better self-concept through counseling, praise and encouragement. Many of the adults that come to us are very hesitant about going back to school. They feel they just can't do it when in reality they can do very well if they can develop more confidence in themselves.

Set-up a one to one tutoring service for those who can't cope with group learning.

Stress personal rewards of study and advancement to help motivate these adults to attend classes regularly and to set up a scheduled time for studying daily.

Once the adult student masters the necessary information for the G.E.D. Test he must be backed up and encouraged to take the test. If these people are not followed through they may not take the necessary steps.

Give private testing to adults who wish to study on their own or with a tutor of their choice but do not know what to study.

Provide encouragement and assistance in studying for people who are studying independently.

Encourage and/or arrange for adults to take classes that will offer what they need and/or want.

Encourage those who get the G.E.D. Diploma to continue advancing and enriching themselves through the available educational opportunities in Flint.

RESULTS OF THE FIRST SESSION (Oct. 5, 1971-Dec. 21, 1971)

GRADUATE EQUIVALENT DIPLOMA REVIEW CLASSES

OBJECTIVE: To provide review classes in Math, Reading, and English to help prepare the adults of the area that have dropped out of High School to take the G.E.D. Test that will give them their diploma.

GOALS OF THE CLASSES:

1. To find out what level these adults must begin on in order to pass the G.E.D. Test. This is done by giving a placement test and then grouping according to their ability.
2. To help these adults develop a better self-concept. Many of the adults that come to us are very hesitant about going back to school. They feel they just can't do it when in reality they can do very well if they can develop more confidence in themselves. Much praise and encouragement are given these people on both an individual basis.
3. Private tutoring is offered those who can't cope with group learning.
4. The personal rewards of study and advancing are constantly dwelled on to help motivate these adults to attend classes regularly and to set up a scheduled time for studying DAILY.
5. Once the adult student masters the necessary information for the G.E.D. Test he is backed up and encouraged to take the test. If these people were not followed through many still would feel they can't do it and not take the G.E.D. Test. If the teachers feel the student is ready but the student does not

feel he is ready another test similar to the G.E.D.
is given him to help instill confidence.

CLASS SCHEDULE:

6:30-9:00 every Tuesday for 13 weeks

1st session:

Oct. 5, 1971-Dec. 21, 1971

2nd session:

Jan. 25, 1972-April 25, 1972

3rd session:

June 26, 1972-August 2, 1972 (twice a week)

RESULTS OF 1st SESSION: (40 adults attended classes)

- a. 7 took the test and passed
- b. 15 will continue for another 13 weeks
- c. 6 dropped out completely--even after much encouragement
- d. 7 decided to go back to school--they felt the classes helped them realize that they could learn and studying was interesting. They are taking adult classes in their school districts.
- e. 5 are still reviewing and will be taking the G.E.D. classes soon--they stop by to ask various questions on what they are studying.

VOLUNTEERS:

Our classes are conducted completely by volunteers. We have 6 professional teachers teaching the area of their specialization (Divided into Math, English, Reading). The teacher teaches the same subject 3 times that night and the students rotate so they have classes in all 3 areas with 3 different teachers.

APPENDIX C

PHILOSOPHY OF MOTT FOUNDATION

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PHILOSOPHY OF MOTT FOUNDATION

The philosophical purpose of the Mott Foundation is to increase the strength and stature of character in individuals and thereby also strengthen our free enterprise system of society. The goal should be first to produce citizens of strength and quality, each of whom accepts his full responsibility as a citizen.

The goal that should follow is that these citizens work effectively together in a democratic society of free enterprise toward a better community. Obviously the Mott Foundation cannot support such efforts for the whole country.

So the purpose of the Mott Foundation will be to learn how to do this in Flint--help to make Flint the laboratory and proving grounds, and let other communities observe and hopefully adopt these programs.

To do this it is necessary to increase education, recreation, physical fitness, children's health, understanding of basic economics, social service, spiritual values, self-reliance and useful living.

In our opinion the best way by which these objectives can be promoted by the Mott Foundation is to conceive, research, test, and support demonstration of the programs that accomplish these objectives in Flint.

We will then invite to Flint interested people from all over the world, and support workshops demonstrating what has been and can be accomplished.

We will also support training of people in the understanding and accomplishment of these programs so they can manage the programs in other places.

Where other places need financial help to get started and to prove themselves in the community, the Mott Foundation is willing to consider some assistance for a limited period in the expectation that the local community will sustain its own program. It is our desire to see that what we have supported shall be perpetuated.

To increase education we will support programs of innovation, research, test and development intended to improve educational methods and intelligence and to greatly

increase the individual's desire and opportunities for education. We will also support research and effort to eliminate conditions that deter educational desires and opportunities for the individual.

To increase recreation we will support programs of good, sound recreational activities and help them be available for maximum participation, young and old.

To increase physical fitness we will support programs of education, health and recreation, and assist organizations who have this objective.

To increase children's health, we will support child health programs. We will also support in Flint a clinic for the health problems of indigent children. This facility will also do research, both basic and applied, which will be of education and assistance to the medical and dental profession in the cure, prevention and elimination of the ills of the child. We plan to work through established medical institutions and professional people. All children completely healthy is our goal.

To increase the understanding of the individual in basic economics we will support the development of training material and the teaching of this material, including the training of the teacher. We believe this understanding is the basis for the future of our successful free enterprise way of life. We believe this teaching should commence at a very early age.

To increase our spiritual values we believe it is necessary to develop individuals of integrity and character and understanding, to eliminate bigotry and bias and hatreds. We will support programs to do this.

To increase social service we will support innovations, research, test and development for improved social service methods. We will assist in the training of people for this purpose.

All of the objectives mentioned so far should result in the building of strong individuals with self-reliance. This in turn will create a very strong society because the strength of a society is the sum total of the strength of its individual members.

Such a strong individual will be dedicated to useful living. He will contribute to society by being a doer, an enterpriser who will support himself and achieve his security through a dedication to useful effort.

This is desperately needed to counteract the weakening of our nation by the ever increasing tendency to depend on government, business and industry to establish security programs that relieve the individual of responsibility.

So we hope the result of our objectives will be "strong and self-reliant individuals dedicated to useful living, working together in a free enterprise society.

Source: Mott Foundation Annual Report, 1967-1968 (Flint, Michigan: Mott Foundation, 1968), pp. 1-2.

APPENDIX D

BROOKOVER SELF-CONCEPT OF ACADEMIC
ABILITY SCALE

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BROOKOVER SELF-CONCEPT OF ACADEMIC
ABILITY SCALE

SELF-CONCEPT OF ABILITY--GENERAL*
(FORM A)

Michigan State University
Bureau of Educational Research

Circle the letter in front of the statement which best
answers each question.

1. How do you rate yourself in school ability compared with
your close friends?
 - a. I am the best
 - b. I am above average
 - c. I am average
 - d. I am below average
 - e. I am the poorest
2. How do you rate yourself in school ability compared
with those in your class at school?
 - a. I am among the best
 - b. I am above average
 - c. I am average
 - d. I am below average
 - e. I am among the poorest
3. Where do you think you would rank in your class in high
school?
 - a. among the best
 - b. above average
 - c. average
 - d. below average
 - e. among the poorest

*Copyright, Bureau of Ed. Research
Michigan State University, 1962

4. Do you think you have the ability to complete college?
 - a. yes, definitely
 - b. yes, probably
 - c. not sure either way
 - d. probably not
 - e. no
5. Where do you think you would rank in your class in college?
 - a. among the best
 - b. above average
 - c. average
 - d. below average
 - e. among the poorest
6. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think it is that you could complete such advanced work?
 - a. very likely
 - b. somewhat likely
 - c. not sure either way
 - d. unlikely
 - e. most unlikely
7. Forget for a moment how others grade your work. In your own opinion how good do you think your work is?
 - a. my work is excellent
 - b. my work is good
 - c. my work is average
 - d. my work is below average
 - e. my work is much below average
8. What kind of grades do you think you are capable of getting?
 - a. mostly A's
 - b. mostly B's
 - c. mostly C's
 - d. mostly D's
 - e. mostly E's

PERCEIVED EVALUATIONS OF STUDENT'S
ACADEMIC ABILITY BY OTHERS SCALES

Section

1. Parents
2. Best Friend
3. Teacher

Please answer the following questions as you think your PARENTS would answer them. If you are not living with your parents answer for the family with whom you are living.

Circle the letter in front of the statement that best answers each question.

1. How do you think your PARENTS would rate your school ability compared with other students your age?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. Where do you think your PARENTS would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that your PARENTS would say you have the ability to complete college?
 - a. Yes, definitely
 - b. Yes, probably
 - c. Not sure either way
 - d. Probably not
 - e. Definitely not
4. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think your PARENTS would say it is that you could complete such advanced work?
 - a. Very likely
 - b. Somewhat likely
 - c. Not sure either way
 - d. Somewhat unlikely
 - e. Very unlikely
5. What kind of grades do you think your PARENTS would say you are capable of getting in general?
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly E's

Go on to the next page

Think about your closest friend at school. Now answer the following questions as you think this FRIEND would answer them.

Circle the letter in front of the statement that best answers each question.

1. How do you think this FRIEND would rate your school ability compared with other students your age?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. Where do you think this FRIEND would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that this FRIEND would say you have the ability to complete college?
 - a. Yes, definitely
 - b. Yes, probably
 - c. Not sure either way
 - d. Probably not
 - e. Definitely not
4. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think this FRIEND would say it is that you could complete such advanced work?
 - a. Very likely
 - b. Somewhat likely
 - c. Not sure either way
 - d. Somewhat unlikely
 - e. Very unlikely
5. What kind of grades do you think this FRIEND would say you are capable of getting in general?
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly E's

Go on to the next page

Think about your favorite teacher--the one you like best; the one you feel is most concerned about your schoolwork. Now answer the following questions as you think this TEACHER would answer them.

Circle the letter in front of the statement which best answers each question.

1. How do you think this TEACHER would rate your school ability compared with other students your age?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
2. Where do you think this TEACHER would say you would rank in your high school graduating class?
 - a. Among the best
 - b. Above average
 - c. Average
 - d. Below average
 - e. Among the poorest
3. Do you think that this TEACHER would say you have the ability to complete college?
 - a. Yes, definitely
 - b. Yes, probably
 - c. Not sure either way
 - d. Probably not
 - e. Definitely not
4. In order to become a doctor, lawyer, or university professor, work beyond four years of college is necessary. How likely do you think this TEACHER would say it is that you could complete such advanced work?
 - a. Very likely
 - b. Somewhat likely
 - c. Not sure either way
 - d. Somewhat unlikely
 - e. Very unlikely
5. What kind of grades do you think this TEACHER would say you are capable of getting in general?
 - a. Mostly A's
 - b. Mostly B's
 - c. Mostly C's
 - d. Mostly D's
 - e. Mostly E's

Go on to the next page

QUESTIONNAIRES TO IDENTIFY SIGNIFICANT OTHERS

Section

1. General Significant Others
2. Academic Significant Others

GENERAL SIGNIFICANT OTHERS QUESTION

There are many people who are important in our lives. In the space below, list the names of the people who you feel are important in YOUR life. Please indicate who each person is.

NAMES

WHO IS THIS PERSON?

If you finish before the time limit, please sit quietly.
Do not turn the page.

ACADEMIC SIGNIFICANT OTHERS QUESTION

There are many people who are concerned about how well young people do in school. In the space below, list the NAMES of the people you feel are concerned about how well you do in school. Please indicate who each person is.

NAMES

WHO IS THIS PERSON?

If you finish before the time limit, please sit quietly.
Do not turn the page.

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