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By- Wasson, John B.

EVALUATION OF AN EIGHT WEEK ADULT EDUCATION PROGRAM.

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As part of a training program for families receiving public assistance, an eight-week summer adult education program for 54 students was conducted in 1965 by the Ramsey County (Minnesota) Welfare Department and the Saint Paul Public Schools under Title V of the Economic Opportunity Act. Each day's program included a staff planning period, an assembly during which such topics as finding a job, budgeting, and citizen responsibility were discussed, instructional periods in reading, mathematics, and vocational guidance-human relations, and a library and counseling period. At the end of the program, the composite grade level on the Gates Reading Survey increased from 9.2 to 10.5, the grade level in arithmetic increased from 5.8 to 8.3, and there were no significant changes in students' responses to an experimental value scale. Thirteen students passed the GED high school equivalency test and 18 failed. Although there were no correlations with GED performance and number of school years completed, students with reading grade levels below ninth grade prior to the program were unable to pass the GED after eight weeks of instruction while those with a prior grade level of 10.0 or higher all passed. The comments, both formal and informal, of students and their counselors were highly favorable. (aj)

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John B. Wasson  
Ramsey County Welfare Department

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## INTRODUCTION

### Description of the Ramsey County Welfare Department, Work and Training Project

Under the auspices of the Minnesota Department of Public Welfare, the Ramsey County Welfare Department is conducting a work and training program involving 1,500 families with children under 21 years of age who had been receiving either AFDC payments or General Assistance payments.

The basic objective of the project is to provide basic education, high school equivalency, vocational education, job testing, counseling, training, and intensive casework with the whole family as a focus, to recipients of assistance. An attempt is being made to provide an effective break in the chain of dependency which has persisted from generation to generation among these families.

Many of these recipients of assistance could not become gainfully employed because of lack of work skills, lack of education, and motivational and attitudinal problems which prevented employment. Not all recipients of assistance are deficient in marketable skills and cooperative attitudes, and for those persons, an effective work experience with movement into employment or Manpower Development programs in a rapid fashion may be all that is necessary.

The work and training program provides intensive family case-work services to each of these families as well as employment, counseling, job training, and education to the potential wage earner. These services are attempting to resolve overall family problems in addition to those problems which directly impinge on the potential wage earner's

ability to seek and maintain employment. The program aims at providing recipients of Public Assistance, help in becoming productive citizens through education, training, work experience, and intensive family casework.

The realization of these goals is expedited by participation of the clients in a work experience program, a work training program, or an education program. This will report on one of these programs, an adult education program.

#### Description of the Adult Education Program

An eight week, summer adult education program was conducted July 6, 1965 to August 27, 1965, jointly by the Ramsey County Welfare Department and the Saint Paul Public Schools under Title V of the Economic Opportunity Act. The program attempted to provide instruction to serve adults whose lack of educational skills constituted a substantial impairment of their ability, successfully to adapt to and function within contemporary society. The skills involved in reading, writing, speaking, listening, arithmetical computation and reasoning, practicing good citizenship, living healthfully, consuming goods and services, getting along with people and living happily with one's family were emphasized. Three teachers from the Saint Paul Public Schools served as the instructional staff, although other people and various specialists were called in from time to time for various parts of the program.

Each day, during the eight week period, started out with a one-half hour planning and enrollment period for the staff. This period was

followed by a one hour general session assembly, during which topics of common interest to all were discussed. During this hour guest speakers were frequently available and films and other audio-visual aids were used liberally. The twenty topics covered in the general session over the eight week period were: getting acquainted; the world of work today; reading the "help wanted" column in a newspaper; answering a "help wanted" ad by telephone; using the classified section of the phone book to find employment; the employment service and related resources; the employment interview; application blanks; occupation opportunities; government jobs; labor unions; government regulations that protect the employee; social security; the age of automation; getting along on the job; job responsibility; education for a better job; planning and budgeting; the worker, a responsible citizen; and the value of continuing education.

The general session was followed by three instructional periods of 45 minutes each. There was an instructional period in reading, mathematics, and in vocational guidance--human relations. These instructional groups were small (less than 15 students in each). An attempt was made by the instructional staff to work with each student at the level he was at and to slant the instruction towards the needs and deficiencies of the individuals in the group.

Following the instructional periods there was a one-half hour period during which the students were given further opportunity to use the library and the teachers were available to consult with individual students or with the student-client's employment counselor.



### Purpose of This Paper

The purpose of this paper is to describe the outcomes of the eight week educational program and to relate these outcomes to student characteristics, both demographic and psychometric.

Outcome variables measured were gains in reading and arithmetic scores based on pre and post testing, changes in scores on a work value scale, teacher ratings in various areas, student scores on the GED high school equivalency tests, counselor descriptions of the clients made at the end of the period, student reactions to the program, and counselor reactions to the program.

Psychometric characteristics were available on most of the students, as the students, had been given a battery of psychological tests, prior to admission in the Adult Education Program. Information such as date of birth, age, sex, race, marital status, highest school grade completed, and prior employment status were available for the students.

### METHOD

All of the students involved in the adult education program were clients in the Ramsey County Welfare Department's Work and Experience Project. These clients are referred to the project by their caseworkers. Once a client has been accepted into the project, he is assigned a new caseworker who continues to work with the client throughout the time the client is in the project. The client is then assigned to a vocational counselor and these two staff members work jointly with the client in an effort to increase the employability of the family unit.



During the first few weeks of the contact the client is referred for a battery of psychological tests. After testing and a number of interviews with the employment counselor and home visits by the caseworker, these two people meet in conference with their respective supervisors and agree upon a plan designed to meet project objectives for the particular client. Assignment to a work experience project, a work training project, or an educational program is made after this conference. All students in the adult education program were referred to the program by this procedure.

#### Students Demographic Characteristics

The employment counselor by reviewing the case record, reading the initial referral to the project, and interviewing the client, obtained the demographic data used in the present study. Data on the clients date of birth, age, sex, race, marital status, highest grade completed, and prior employment status were routinely collected and coded in this way. Prior employment status was coded as follows:

At time assignment was made, participant was:

(a) Underemployment	1
35-39 hours per week and less than full time	2
Less than 35 hours per week	3
Under skill level	4
Impending technological layoff	5
(b) Unemployed	6
Less than 5 weeks unemployed	7
5-14 weeks unemployed	8
15-26 weeks unemployed	9

(b) Unemployed continued	
27-52 weeks unemployed	10
Over 52 weeks unemployed	11
(c) Member of farm family with income less than \$1,200	12

### Student Psychometric Characteristics

Students were, as mentioned above, were given a battery of psychological tests, prior to assignment to the adult education program. These tests were all group tests and were administered by a trained psychometrist in small groups of 8 and 12 clients during two one-half days of testing. Tests administered in this way were as follows:

1. The Gates Reading Survey, Form 1, which yields raw scores and grade scores for reading speed, reading vocabulary, and reading comprehension, and a composite or average grade score, which is the average grade score on the reading speed, vocabulary, and comprehension subtests.
2. The Jastak Wide Range Achievement Test, Arithmetic Section, which yields raw scores and grade scores reflecting arithmetical computational ability.
3. The Army General Classification Test, a test of general intellectual capacity which yields a raw score and an equivalent IQ score which was obtained by percentile transformation to an IQ score with a general population mean of 100 and standard deviation of 15.
4. The Minnesota Paper Formboard, a test of spatial reasoning which yields a raw score.
5. The Kruder Preference Record, Vocational, Form CH, which yields raw scores on a validity scale(V) and ten other scales (outdoor, mechanical, computational, scientific, persuasive, artistic, musical, social science, literary, and clerical).

6. The Minnesota Multiphasic Personality Inventory, which was scored for four validity scales (? , L, F<sub>1</sub> and K), ten clinical scales (Hs, D, Pd, Pa, Pt, Sc, Ma, and Si), and one experimental scale, the Wa or work attitude scale. K corrected scores were also made available on the Hs, Pd, Sc, and Ma scales.

#### Outcome Variable Measures

Student changes or gains in reading, arithmetic, and work attitude were obtained by pre and post testing in this area. Attendance records were kept and all three teachers evaluated each student with the aid of the supervisors rating scale. At the end of the eight week period all appropriate students were given the GED high school equivalency test. During the last week of class, employment counselors were asked to complete a progress report on each client in the adult education program, and also to give their own reactions to the program. During the last week of classes the students were asked to fill out anonymously an evaluation of program forms. Each of these measures will be described in detail below.

1. Reading gain measures. The Gates Reading Survey, Form 1 was administered by the instructional staff during the first and last week of the program. Grade scores on reading speed, vocabulary, comprehension, and composite or average were thus made available and changes in scores from the first to eight week computed.

2. Arithmetic gains measure. The Jastak Wide Range Achievement Test, Arithmetic Section, was also administered by the instructional staff during the first and last week of the program. Grade scores on

arithmetic computational ability were thus available for the two times and changes in grade score over the eight week period were computed.

3. Work Value Changes. Changes in work attitude were measured by the administration of a Value Scale, an experimental measure of work attitude, developed by Dr. Arthur Bradely and his associates at the Minneapolis Veteran's Administration Hospital. The Work Value Scale was administered twice to the students in the program, once during the third week of the program and again during the last week of the program. For comparative purposes, the Work Value Scale was also administered to the instructional staff of the program and to all members of the Work and Experience Project Staff (including counselors and caseworkers). The Value Scale consists of 53 items to which the subject is asked to react to each item by the appropriate placement of an X. The directions, which are printed on the face of the test booklet and were also read aloud to the students are as follows---"Directions: For the following statements, indicate whether you strongly agree, agree, disagree, or strongly disagree with each statement by placing an X in the correct space. Make one X for each statement." The 53 items comprising the Value Scale (experimental form 1) are to be found in table 1.

Table 1 Items Comprising the Value Scale (experimental form 1)

1. People should learn how to save at an early age.
2. Employers usually don't care much about the people who work for them.
3. The government should support people who can't work.

4. Retaining disabled persons so they can go to work is better than giving social security disability benefits.
5. A man shouldn't have to work harder than his employer.
6. Very few people really enjoy work.
7. A boss usually gives the good jobs to favorites of his.
8. Everyone should buy health insurance.
9. The main responsibility for finding work lies with the man himself, regardless of his disability.
10. A man who has a disability should be given higher pay for the same job than a man without a disability.
11. Anyone can find a job if he looks hard enough.
12. The main reason for changing jobs is boredom.
13. It's foolish to give up free time to earn a little more money.
14. It's better to get a straight salary than a commission.
15. No one has to worry about starving in this country.
16. A man should always be on the look-out for a better job.
17. People shouldn't worry about what others think.
18. People have to give up a lot of fun if they wish to get ahead.
19. A man can't have much pride if he's unemployed most of the time.
20. Working hard isn't enough to get ahead on a job.
21. Veterans are entitled to special treatment in job practices because of what they did for their country.
22. If a disabled veteran does not want to work he should not be pushed into a job.
23. In general, most people who are not working could be if they had more ambition.
24. Everyone should try to own his own home.

25. Most employers are not interested in hiring people with physical or emotional disabilities.
26. The government should give larger pensions to old people.
27. If the income were the same, most men would rather be on a pension than continue working.
28. Unemployment pay should continue as long as a man is out of work.
29. Almost everyone would prefer a four-day work week.
30. A man should save so he can take care of himself in old age.
31. In the family where the breadwinner is disabled, the wife should support the family, not the welfare agency.
32. Social Security should be set up so that a disabled person could work if he wanted to.
33. It's easier for women to find work than it is for men.
34. A man with a large family should get more breaks.
35. A man should do his best on a job, even if he feels his boss is taking advantage of him.
36. The responsibility for finding disabled veterans a job belongs to the Veterans Administration, not the veteran.
37. A share of everyone's income should go for life insurance.
38. If a man is out of work he might as well draw unemployment pay as long as he can.
39. You don't need much money to enjoy a good simple life.
40. People who get sick a lot can't compete for good jobs.
41. Most married women would like to get out and work.
42. I think that the Veterans Administration is doing too much for the veterans.
43. The government should help find jobs for people.
44. Unemployment can't be avoided.



45. The best way to find work is to put your name in at some employment office and then wait.
46. There is seldom a good excuse for being unemployed.
47. A man should take care of his own problems.
48. All jobs are about the same, it doesn't make much difference where a man works.
49. I think that I would rather have a job than depend upon pension, compensation or social security.
50. Men should be able to retire at an earlier age.
51. Most people work only because they have to.
52. A veteran deserves special help from the government.
53. It is the union's responsibility to see that disabled persons are given work when they qualify.

4. Teacher ratings. During the last one and one-half weeks of the adult education program, all three teachers rated each student on a Supervisor's Rating Scale. This is a five step rating scale where the rater is asked to rate the subject in the areas of task performance (6 items), personal information (4 items), co-worker relationships (1 item), and supervisor relationships (2 items). The rater was also asked if he would recommend the subject as an employee to one of his close friends (yes or no) and if his answer was yes, would he be willing to recommend the subject without reservations (yes or no).

Each item was given a score from 1 (least desirable) to 5 (most desirable) and the yes-no answers were given scores of 2 for yes and 1 for no. For each student the average score over the three raters for each item was found and these average scores were added up in two ways to provide two scores for each student. The task performance score



section and the total score was a total of all scores on the rating scale (including the task performance score).

5. The GED high school equivalency test. During the last week of class many of the students took the GED. Scores on each of the subtests (correctness and effectiveness of expression; interpretation of reading materials in the social studies; interpretation of reading materials in the natural sciences; interpretation of literary materials; and general mathematical ability) were obtained, as was the average score. Whether a student passed or failed the GED was also noted. To pass the test and obtain a high school equivalency diploma from the Saint Paul Public Schools (who administered and scored the tests) a student was required to have a minimum score of 35 on each test and have an average score for all tests of 45.

6. Counselors descriptions. During the last two weeks of the educational program each employment counselor who had a client in the program was asked to fill out a progress report on each of his clients. In the progress report the counselor was asked to answer the following questions:

a. What is the anticipated next step in your planning?  
What program will your client be participating in next?

\_\_\_\_\_

b. At what time does this program start? Date \_\_\_\_\_

c. How long do you expect this program to continue? \_\_\_\_\_

\_\_\_\_\_

d. What do you believe has been your client's general reaction to the Adult Education Program (favorable, average, or unfavorable).

- e. During the period the Adult Education Program was being held (July 5--August 27), how many interviews did you have with your client? \_\_\_\_\_

7. Student reactions to the program. On the last day of class, students were asked to answer anonymously the following questions:

Please tell how you feel about:

- a. Coffee hour, should we have had one?
- b. 8:30 - 9:30 morning sessions
- c. Class work
- d. Text Books
- e. Instructors
- f. Testing program
- g. Any other comments that will help us to improve future progress.

8. Counselors reactions to the program. When the employment counselors filled out the progress report referred to in number 7 above they were also asked to answer the question--On the reverse side of this memo please state briefly any impressions you might have of the present Adult Basic Education Program.

#### RESULTS AND DISCUSSION

A total of 56 students were originally referred to the Adult Education Program, Two of these were transferred to other agencies and no data was collected on them, leaving 54 students on which the following results are based. Not all of the data was obtained on all 54 of

these students. The results of the study will be discussed in terms of student demographic characteristics, student psychometric characteristics, and results of outcome variable.

### Student Demographic Characteristics

Among 53 of the 54 students, 34 were males and 19 were females. Four of the males and seven of the females were non-white, while the remainder of the group were white. All of the male students were married. Of the 19 female students, 1 was married, 3 were single, and 15 were either divorced or separated. The male students ranged in ages from 19 to 52, with a mean age of 32.0 years. The female students ranged in ages from 23 to 46 years, with a mean age of 32.6 years. The mean age for the entire group was 31.6 years. The mean age of the students by sex and race is presented in Table 2.

Table 2. Mean age of 53 adult education students by sex and race.

	Male			Female		
	White	Negro	Other	White	Negro	Other
Mean Age	<u>31.1</u>	<u>35.7</u>	<u>49.0</u>	<u>32.4</u>	<u>28.3</u>	<u>-</u>
Number	30	3	1	12	7	0

The education attainment of the group in terms of highest grade completed ranged from the fourth grade to one year of college. The distribution of prior educational attainment for the group is shown in Table 3.

Table 3. Distribution of educational attainment for the 34 males and 19 females in the adult education program.

Highest grade completed	Males		Females	
	N	%	N	%
6 or less	3	8.8	0	0
7	2	5.9	0	0
8	2	5.9	2	10.5
9	9	26.5	6	31.6
10	10	29.4	4	21.0
11	6	17.6	4	21.0
12	1	2.9	3	15.8
13	1	2.9	0	0
Totals	34	99.9	19	99.9

Only one of the students in the adult education class were employed at the time they were assigned to the program. The employment status of the 53 students at the time of assignment is shown in Table 4.

Table 4. Employment status at the time of assignment to the adult education program of 34 males and 19 females.

Number of weeks Unemployed	Males		Females	
	N	%	N	%
Employed	0	0	1	5.0
less than 5	2	5.9	0	0
5-14	2	5.9	0	0
15-26	8	23.5	0	0
27-52	8	23.5	3	15.8
over 52	14	41.2	15	79.0
Totals	34	100.0	19	99.8

### Student Psychometric Characteristics

The Gates Reading Survey, Form 1 and arithmetic section of the

Jastak Wide Range Achievement Test. Means and standard deviations on these tests are reported in Tables 5 and 6.

Table 5. Mean and standard deviations on raw scores and grade scores for the Gates Reading Survey, administered prior to adult education class.

	<u>Reading Speed</u>		<u>Vocabulary</u>		<u>Comprehension</u>		<u>Composite</u>
	<u>Raw</u> <u>Score</u>	<u>Grade</u> <u>Score</u>	<u>Raw</u> <u>Score</u>	<u>Grade</u> <u>Score</u>	<u>Raw</u> <u>Score</u>	<u>Grade</u> <u>Score</u>	<u>Grade</u> <u>Score</u>
Mean	18.9	7.9	44.9	9.3	31.7	8.6	8.5
Standard Deviation	7.2	2.6	16.2	3.1	9.6	2.7	2.6
N	30	30	30	30	30	30	31

Table 6. Mean and standard deviation on raw score and grade score for arithmetical computation test administered prior to adult education class.

	<u>Raw Score</u>	<u>Grade Score</u>
Mean	24.3	5.4
Standard Deviation	8.5	1.2
N	32	32

31 adult education students took the Army General Classification Test. Results for this test are shown in Table 7.

Table 7. Mean and standard deviations on the Army General Classification Test for 31 students.

	<u>Raw</u> <u>Score</u>	<u>IQ</u> <u>Equivalent</u>
Mean	76.0	102.2
Standard Deviation	23.6	11.8
N	31	31

Table 7 continued

Results for the 26 students on the Minnesota Formboard, a test of special perception are shown in Table 8.

Table 8. Mean and standard deviations for the raw scores on the Minnesota Paper Formboard Test for 26 students.

Mean	30.1
Standard Deviation	8.2
N	26

Of the 53 students in the adult education class, 30 had been administered the Kuder Preference Record, Vocational Form C H and the Minnesota Multiphasic Personality Inventory. The mean and standard deviations for the raw scores on the Kuder are shown on Table 9. Four of the students had invalid Kuders so the results in Table 9 are based on 26 students, except for the validity score (V-score) which is based on all thirty students.

Table 9. Means, standard deviations, and percentiles for raw scores on Kuder Preference Record.

Table 9

Kuder	Scale	Males		Females		Total Raw Score
		Raw Score	%ile	Raw Score	%ile	
Validity	V $\bar{X}$	40.3		40.2		40.3
	SD	4.5		3.3		3.9
Outdoor	0 $\bar{X}$	40.9	73	32.2	46	36.9
	SD	17.8		15.2		16.9
Mechanical	1 $\bar{X}$	47.6	55	27.0	57	38.1
	SD	10.8		14.7		16.6
Computational	2 $\bar{X}$	25.7	37	23.5	51	24.7
	SD	7.1		10.3		8.6

Table 9 continued

	Kuder Scale	Males		Females		Total
		Raw Score	%ile	Raw Score	%ile	Raw Score
Scientific	3 $\bar{X}$	41.6	53	40.2	76	40.6
	SD	9.8		11.3		10.5
Persuasive	4 $\bar{X}$	34.4	34	29.6	46	32.2
	SD	8.5		5.9		7.7
Artistic	5 $\bar{X}$	23.7	57	23.7	41	23.7
	SD	7.1		7.5		7.1
Literary	6 $\bar{X}$	16.5	39	19.2	45	17.8
	SD	7.5		6.3		6.9
Musical	7 $\bar{X}$	12.0	54	9.9	24	11.0
	SD	9.9		5.4		8.0
Social Science	8 $\bar{X}$	50.1	73	62.2	85	55.7
	SD	13.3		10.7		12.8
Clerical	9 $\bar{X}$	48.6	61	59.3	56	53.6
	SD	11.0		20.1		16.5

The group scores for the validity scales, the clinical scales, and the work attitude scale on the Minnesota Multiphasic Personality Inventory are reported in Table 10. This table is based on 30 students with the exception of the social introversion scale (0) which is based on 29 students.

Table 10. Means and standard deviations of raw scores and T-scores for MMPI scale scores of 30 adult education students.

MMPI Scale	Males		Females		Totals
	Raw Score	T- Score	Raw Score	T- Score	Raw Score
? $\bar{X}$	4.8	42	0.9	41	3.1
SD	7.3		3.1		5.9



Table 10 continued

MMPI Scale	Males		Females		Totals
	Raw Score	T- Score	Raw Score	T- Score	Raw Score
L $\bar{X}$	4.2	50	4.0	50	4.1
SD	2.1		2.4		2.2
F $\bar{X}$	4.3	53	3.6	53	4.0
SD	2.7		2.0		2.4
K $\bar{X}$	14.2	53	12.2	49	22.0
SD	4.5		4.9		4.7
1 $\bar{X}$	6.9	56	6.5	50	6.7
SD	4.6		7.3		5.8
1 plus K correction $\bar{X}$	14.2	39	12.8	50	13.6
SD	4.8		7.5		6.0
2 $\bar{X}$	22.3	63	23.2	57	22.7
SD	5.6		4.2		5.0
3 $\bar{X}$	23.0	62	18.2	49	22.2
SD	5.5		10.5		6.4
4 $\bar{X}$	21.6	70	20.4	65	21.1
SD	4.0		4.1		4.0
4 plus K correction $\bar{X}$	27.4	69	25.2	64	22.4
SD	4.2		5.1		4.7
5 $\bar{X}$	22.9	55	37.8	47	29.4
SD	3.7		2.5		8.2
6 $\bar{X}$	10.8	59	9.9	56	10.4
SD	3.4		2.5		3.0
7 $\bar{X}$	11.9	53	16.7	55	14.0
SD	6.7		6.4		6.5
7 plus K correction $\bar{X}$	26.1	56	28.9	56	27.3
SD	5.0		4.1		4.8
8 $\bar{X}$	11.2	52	14.1	54	37.4
SD	5.6		6.6		6.1
8 plus K correction $\bar{X}$	25.1	55	26.3	55	25.6
SD	5.5		6.7		6.0

Table 10 continued

MMPI Scale	Raw Score	<u>Males</u>		<u>Females</u>		<u>Totals</u>
		Raw Score	T- Score	Raw Score	T- Score	Raw Score
9	$\bar{X}$ SD	16.8 4.9	57	17.1 4.0	57	16.9 4.4
9 plus K correction	$\bar{X}$ SD	19.8 4.5	59	19.5 3.9	58	19.7 4.1
0	$\bar{X}$ SD	25.8 7.0	51	34.5 8.0	62	30.0 8.6
Wa	$\bar{X}$ SD	9.3 3.6	--	11.9 4.2	--	10.4 4.0

Figures 1 and 2 show the mean MMPI profiles (K corrected for males and females respectively, in the adult education program.

Figure 1. Mean K-corrected MMPI profiles for males in adult education program.

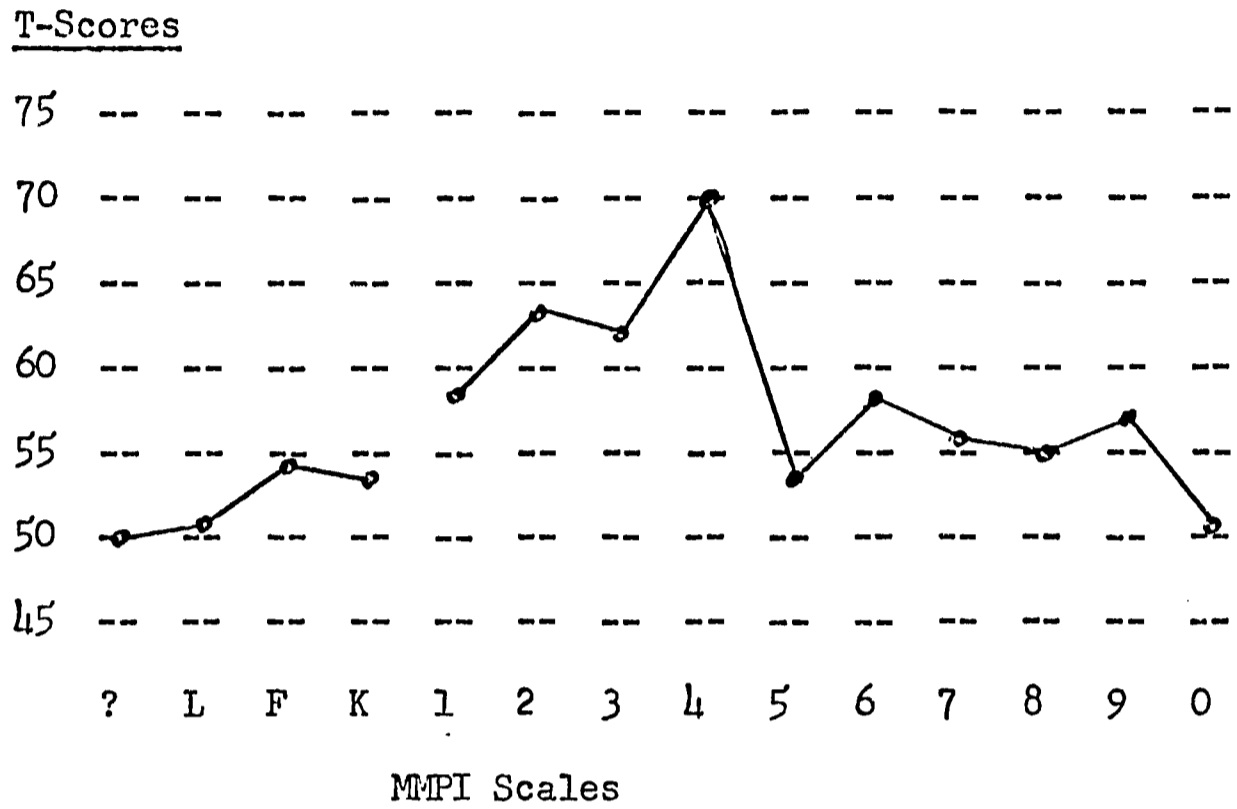
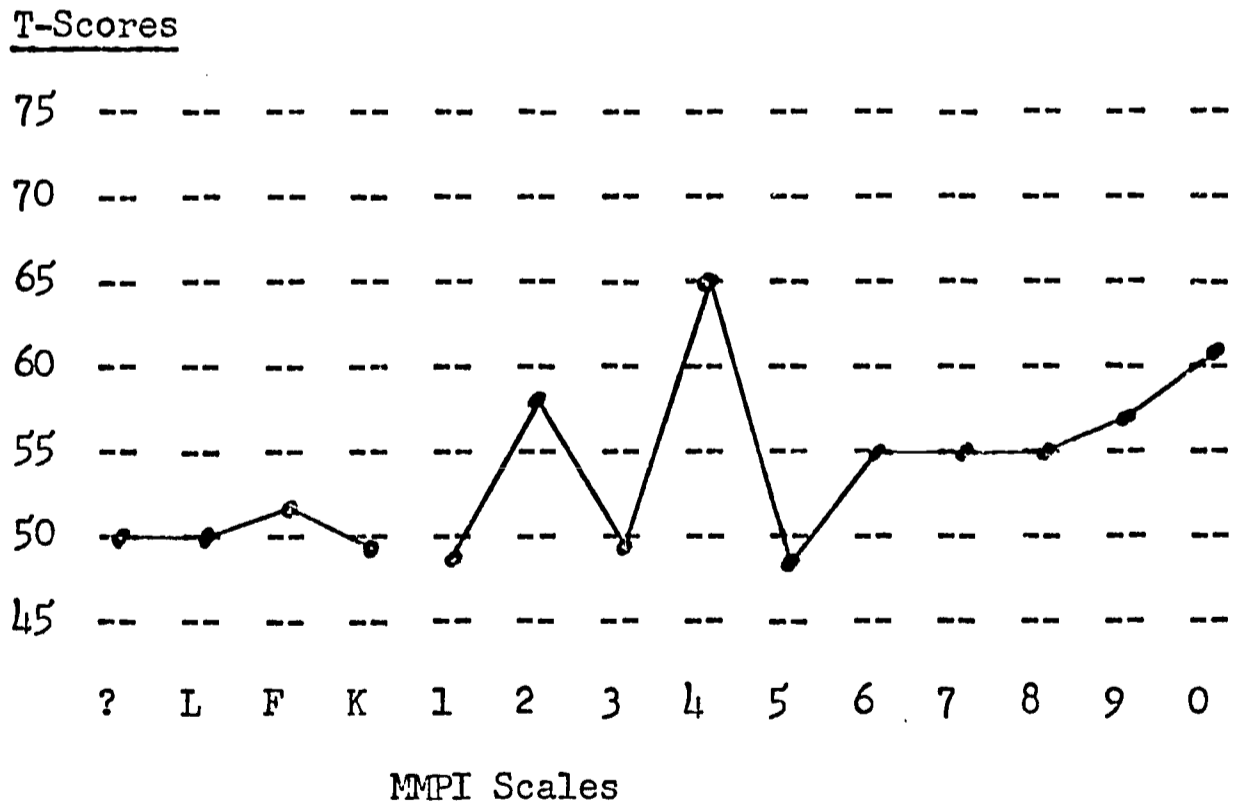


Figure 2. Mean K-corrected MMPI profiles for females in adult education program.



Results on Outcome Variables

Outcome variables were obtained in student changes or gains in reading, arithmetic, and an experimental value scale. Other outcome variables are teachers ratings, student performance on the GED high school equivalency tests, counselor progress reports, student reactions to the program, and counselors reactions to the program. Each of these variables will be discussed in turn.

1. Reading gains. Grade scores for the three administrations of the Gates Reading Survey are shown in Table 11. The first administration was also reproduced in Table 5; presented earlier.

Table 11. Mean and standard deviations of Gates Reading Survey grade scores obtained at three different times. (1=before class started, 2=first week of class, 3=last week of class).

	<u>Reading Speed</u>			<u>Vocabulary</u>			<u>Comprehension</u>			<u>Composite</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
$\bar{X}$	7.9	9.5	11.2	9.3	9.2	10.3	8.6	8.7	9.8	9.5	9.2	10.5
SD	2.6	3.9	1.5	3.1	3.3	2.1	2.7	2.8	1.9	2.6	1.7	1.6
N	30	50	30	30	50	21	30	49	20	31	18	17

2. Arithmetic gains. Grade scores for the three administrations of the Gates Reading Survey are shown in Table 12. The first administration is reproduced from Table 6, presented earlier.

Table 12. Mean and standard deviations of arithmetical computation grade score (Jastak Wide Range Achievement Test) obtained at three different times (1=before class started, 2=first week of class, 3=last week of class).

	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Changes 2nd-3rd</u>
$\bar{X}$	5.4	5.8	8.3	+1.92
SD	1.2	1.7	2.3	2.6
N	32	50	25	24

3. Value scale changes. When two-tailed tests were performed on the 53 items comparing item or scale mean scores for the two administrations, there was only one significant item at the .05 level of statistical significance. This could be a chance result (with 53 T-tests being calculated) and hence there was no group changes in performance of the value scale over the five week period between the two administrations.

4. Teachers ratings. 50 of the students were rated by the instructional staff on the Supervisor's Rating Scale. Two scores were obtained, a task performance score and a total score. Means and standard deviations for those scores are shown in Table 13.

Table 13. Mean and standard deviations for scores on Supervisors Rating Scale (Scores based on average rating of three observers).

	<u>Task Performance Score</u>	<u>Total Score</u>
$\bar{X}$	18.1	43.8
SD	4.7	7.6
N	50	50

For the 28 students on whom both Supervisor's Rating Scale and MMPI data were available, there was a correlation of .25 between the SRS task performance score and the MMPI--Work Attitude Score and the correlations of .62 between the SRS total score and the MMPI-Work Attitude Score.

5. Student performance on the GED high school equivalency tests. During the last week of the class period 32 students took the GED tests. Of these 32 students, 13 passed, 18 failed, and 2 did not complete the tests. Of those 31 students who had either passed or failed, 17 had previously taken the Gates Reading Survey Test, 18 had taken the Jastak arithmetic test, 18 had taken the Army General Classification Test, and data concerning years of school completed was available on 28 persons. These four variables: Gates composite score, Jastak arithmetic grade score, AGCT raw score, and years of school completed were put into a prediction equation two at a time and the best two predictors of pass-fail on the GED tests were found.

When performance on the GED tests in terms of pass or fail were correlated with psychometric data obtained (biserial correlation coefficients), average reading grade on the Gates Reading Survey correlated .746, grade scores on the arithmetic section of the Jastak correlated .453, and raw scores on the Army General Classification Test correlated .379. When the years of school completed was correlated with GED performance, a co-efficient of  $-.075$  was obtained.

The reading test thus seems to be the best predictor of who is going to be able to pass the GED at the end of the 8-week program. The distribution of GED performance by reading grade scores for 17 students.

is shown in table 14.

Table 14. Distribution of GED performance by grade scores on reading test administered prior to entering the adult education program for 17 students.

<u>Gates Reading Grade Scores</u>	<u>Number Passing GED</u>	<u>Number Failing GED</u>
12.0-12.9	1	0
11.0-11.9	2	0
10.0-10.9	2	0
9.0- 9.9	1	2
8.0- 8.9	0	5
7.0- 7.9	0	3
6.0- 6.9	0	0
5.0- 5.9	<u>0</u>	<u>1</u>
Totals	6	11

In general the results of Table 14 suggests that of clients who received a reading grade prior to admission in the 8-week program, lower than 9.0 none were able to pass the GED after the 8 weeks of instruction, while of clients obtaining reading grades greater than 10.0 all were able to pass the GED after 8-weeks of instruction.

6. Counselors progress reports. Of the 53 students in the adult education program, counselor progress reports were returned on 51 of the students. When the counselors were asked to indicate what the client was going to do next, they responded as indicated in Table 15.

Table 15. Counselors indications of what program their clients will be in after completion of the 8-week adult education program.



Table 15 continued

<u>Program</u>	<u>N</u>	<u>Percent of Total</u>
Work Experience	7	13.2
Work Training	12	22.6
Education	20	37.8
Placement	5	9.4
Further Evaluation	6	11.3
Left or leaving program	<u>3</u>	<u>5.7</u>
Total	53	100.0

Of the people going into Work Training Programs: 3 were going into a ground's keeper course, 3 into a janitorial course, 2 into a dietary assistant course, 2 into nurse's aide course, 1 into a laundry course, and 1 into an orderly course.

Of those going into educational programs, 6 were going to return to an adult education program, 6 were going to attend business school, 3 were to enter a nurses training program, 2 were going to vocational school, 2 were going to attend medical technologist school, and 1 person was planning on attending beauticians school. Of the 6 people who were to undergo further evaluation, 4 were to be medically evaluated, 1 was to have further intellectual and personality evaluation, and 1 was to undergo a vocational evaluation in a vocational rehabilitation center.

7. Student reactions to the program. Nineteen of the students filled out a form asking them their reactions to the program. Their general response were as shown in Table 16.

Table 16. Responses of 19 students to evaluation of program form administered anonymously.

Table 16 continued

<u>Area of Question</u>	<u>General Responses</u>	<u>Requency of Response</u>
1. Should coffee hour be held	a. Yes	19
	b. no	0
	Total	<u>19</u>
2. How was the 8:30-9:30 general session	a. OK as is	9
	b. OK but parts should be omitted	5
	c. Should be dropped	3
	d. No response	2
	Total	<u>19</u>
3. How was classwork	a. OK as is	12
	b. Too fast	5
	c. Inappropriate materials	2
	Total	<u>19</u>
4. How were the text books	a. OK	14
	b. Should be more available	4
	c. Didn't like them	1
	Total	<u>19</u>
5. How were the instructors	a. OK	19
	Total	<u>19</u>
6. How was the testing	a. OK as is	13
	b. Too much testing	3
	c. Not enough evaluation	2
	d. No response	1
	Total	<u>19</u>
7. Other Comments	a. There should be better grouping of students by ability	9
	b. There should be more emphasis on subject matter instruction	2
	c. No response	8
	Total	<u>19</u>

8. Counselors reactions to the program. When the counselors were asked to give any impression they might have about the adult education

program, four responded and all in a generally positive way and they felt that the program was of help to their clients. Three of these four stated that more emphasis had to be made on individual attention to students and that better provisions should be made for the duller student. One counselor thought that in some ways the adult education program was working at cross current with the overall work and experience program.

#### SUMMARY AND CONCLUSIONS

This paper discusses the outcome of a eight week, summer adult education program conducted from July 6, 1965 to August 27, 1965 jointly by the Ramsey County Welfare Department and the Saint Paul Public Schools under Title V of the Economics Opportunity Act. The outcome variables measured were gains in reading and arithmetic scores based on pre and post testing, changes in scores on the work value scale, teachers ratings in various areas, student scores on the GED High School Equivalency Test, counselors descriptions of the clients made at the end of the period student reactions to the program, and counselors reactions to the program. The study was based on 54 students with a mean age of 31.6 years.

On the Gates Reading Survey the average grade level went from 9.5 on the first week of class to 11.2 on the last week of class in reading speed, from 9.2 to 10.3 in reading vocabulary, and from 8.7 to 9.8 in reading comprehension. The composite grade score on the Gates went from a 9.2 grade level on the first week of class to a 10.5 grade level on the last week of class. During this same period (time) the

Summary and Conclusions continued

average grade of the class, in arithmetic increased 1.92 grades, starting at the 5.8 grade level and ending at the 8.3 level.

There were no significant changes in the students responses to an experimental value scale administered at the beginning and end of the eight week period. At the end of the eight week period, 32 of the students took the GED high school equivalency test. Of these 32 students, 13 passed, 18 failed and 2 did not complete the test. Pass or fail on the GED test was correlated with psychometric data. With this criteria the average reading on the Gates correlated .746, grade scores on the arithmetic section the Wide Range Achievement test correlated .453, and raw scores on the Army General Classification test correlated .379. There were no correlation with GED performance and number of years of school previously completed. In general it seems clients who, prior to admission in class, received reading grades lower than ninth grade were unable to pass the GED after eight weeks of instruction. Those who had a prior grade of 10.0 or higher were all able to pass the GED. The comments, both informal and formal, of both students and their counselors about the educational program and the way it was handled were highly favorable.

