

FACTORS RELATED TO SUCCESS OF
MENTALLY RETARDED CLIENTS
IN A VOCATIONAL PROGRAM

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Chapter 1

INTRODUCTION

This study was undertaken to investigate factors that may be related to the failure of mentally retarded individuals to complete the program of the Vocational Rehabilitation Unit, Topeka, Kansas. The Vocational Rehabilitation Unit (VRU) is a facility operated by the Kansas Division of Vocational Rehabilitation for the purpose of preparing mentally retarded individuals age sixteen and over for employment in the competitive labor market. The VRU program consists of an evaluation phase followed by two training phases. At the end of the evaluation phase, a client is either moved to a training phase or considered nonfeasible for continuation in the program. Either at the end of the evaluation phase or at some point in the training phase, a decision is made by VRU staff to consider the client eligible for job placement. However, according to a survey done at VRU, forty per cent of the clients admitted to the facility either failed to complete the evaluation program or were considered nonfeasible at the end of the evaluation phase of the program (Tippit, 1970).

In searching for factors related to vocational success and failure, the obvious factor to consider with mentally retarded clients would be level of intellectual ability. Yet in a study by Clarkes, related in McKerracher and Orritt (1972), intellectual ability as measured by IQ did not appear to bear any significant relationship to

vocational success. The question then was whether there are other factors that are significantly related to successful employment.

From a similar facility, Dubrow (1960) suggested that certain biographic and demographic data were related to success in competitive employment. Dubrow stated:

Using competitive employment as a criterion, the most favorable trainee characteristics appear to include: (a) being a male; (b) twenty-two years of age or older; (c) without psychosis or serious emotional disturbance; (d) acceptance of mental subnormality; (e) some previous work experience; (f) fairly realistic job preference; (g) some reluctance to enter the workshop (1960, p. 394).

Surveys by VRU staff have indicated that some data have been related to low rates of success in the VRU program, but these results were not rigorously treated statistically. These categories included (a) being a sixteen-year old male (Tippit, 1970), (b) being a female over age thirty-five (Tippit, 1970), and (c) having a history of emotional disturbance (Schutz, 1970). Other characteristics have been hypothesized by VRU staff members to contribute to lower rates of success in the program, but have not been studied in any way. Included in these speculations were (a) degree of physical handicap accompanying mental retardation, (b) periods of previous institutionalization, and (c) history of abnormal social behavior.

THE PROBLEM

While studies have correlated various factors with rates of vocational success and failure in other agencies working with the mentally retarded, no statistically oriented study had been carried out on the agency in question, despite the existence of some interesting preliminary studies. Since situations might vary from location to

location, program to program and clientele to clientele, a look at this particular agency appeared to be in order.

Statement of the Problem

Is there a significant relationship between select client characteristics, available on application for admission, and rate of success, as defined, in the VRU program?

Statement of the Hypotheses

There is no significant difference between males and females with respect to success in the VRU program.

There is no significant difference between sixteen-year old males and all other males with regard to success in the VRU program.

There is no significant difference between thirty-five-year old and older women and all other women with respect to success in the VRU program.

There is no significant difference between clients with a history of emotional problems and clients with no such history with respect to success in the VRU program.

There is no significant difference between clients with a history of institutionalization in state hospitals for the mentally retarded and those with no such history with regard to success in the VRU program.

There is no significant difference between clients with a history of antisocial behavior and those with no such history with respect to success in the VRU program.

There is no significant difference between clients with at least a moderate degree of physical impairment and those without such

impairment with regard to success in the VRU program.

There is no significant difference between clients with no previous work experience and clients with previous work experience with respect to success in the VRU program.

There is no significant difference between clients in the upper, middle and lower ranges of measured IQ as defined for this sample with respect to success in the VRU program.

Purpose of the Study

The purpose of this study was to determine whether certain client characteristics were related to low rates of success in the VRU program. The following characteristics were examined for significant relationships to successful completion of the VRU program.

1. Male sex versus female sex.
2. Certain age-sex categories.
3. History of emotional disturbance.
4. History of institutionalization in a facility for the mentally retarded.
5. Evidence of antisocial behavior.
6. Presence of work experience.
7. IQ level.
8. Presence of physically handicapping conditions.

Significance of the Study

The significance of this study lay first in the fact that the study treated statistically the hypotheses suggested by staff members and surveys done at the VRU that had not been tested statistically before, despite persistent indications that these hypotheses might be valid.

To know that certain categories of clients have low rates of success would be valuable regardless of the use to which the information is put.

The second significant function of the study will hopefully be to provide a base for further research into two areas. The first of these is the area of selection. If certain factors are strongly associated with low rates of success, the possibility of determining a screening method that will use these factors or a combination of them to improve upon the initial admission procedure could be pursued. The second research area would be to identify the reasons inherent in the VRU program for the low rates of success of particular client groups, with a view toward considering modifications of the program to better serve these client groups. This may well become important if the percentage of clients in low success categories would increase to any great extent, which could conceivably occur as special education work-study programs become more effective and more widespread.

DEFINITION OF TERMS

Several terms used in this paper are terms of wide usage that required specific definition in this context. Other terms required definition to guide in scoring and categorizing for purposes of replication. This section attempts to provide these definitions.

History of Antisocial Behavior

Antisocial behavior is defined as synonymous with evidence of incarceration in a state or local penal facility, as indicated by information on the preadmission case review sheet.

History of Emotional Disturbance

A client considered to have such a history is one for whom mention of institutionalization in a psychiatric facility, of outpatient treatment for emotional problems, or of a record of drug prescription of behavior control at the time of admittance is found on the preadmission case review sheet.

History of Institutionalization in State Hospitals for the Mentally Retarded

To be considered as a member of this group, a client must have on his preadmission case review sheet some indication of a period of institutionalization in Parsons, Winfield or Norton State Hospital.

Moderate Degree of Physical Impairment

The essential element of this category is the presence of a physical disability that would constitute a vocational handicap in addition to mental retardation. The criterion for the determination of such a handicap was basically the medical information presented on the preadmission case review sheet. A mention of restriction or limitation of activity for medical reasons while at VRU was considered as sufficient for inclusion, while cases labeled mild or minor with no corresponding restrictions in function were not included. For those cases in which a condition was listed but no functional limitations were given, a judgment as to the presence of an additional vocational handicap was made by two vocational rehabilitation counselors.

Previous Work Experience

Work experience for the purpose of this study refers to the presence on the preadmission sheet of some sort of paid employment outside the home. Generally, any work experience at all was included, even if it was of short duration. In a very few cases, prior work listed as occasional babysitting for a sister was not included, as the situation resembled that of working at home.

Success in the VRU Program

For the purpose of this study, success in the VRU program will be defined as the completion of the evaluation phase of the program, and upon completion of this phase, being assigned to a group of clients being considered for job placement. Generally, this means that the client has performed in such a manner that the staff feels the client is ready for employment. Failure in the VRU program implies that a client did not complete the evaluation phase of the program or was considered nonfeasible for employment as a result of the evaluation.

Upper, Middle and Lower IQ Range

While definitions of ranges of mental retardation have been made by Wechsler and by the American Association on Mental Deficiency, the range of ability under consideration was small enough to make the application of these existing classifications to the present study impractical. Accordingly, the following classification was made based on the sample data.

Upper range - Full Scale score of 80 or above

Middle range - Full Scale score of 63 to 79

Lower range - Full Scale score of 62 or below

To avoid problems of definition of IQ and variance in the standard error of measure of various tests, only those cases were included for which a Full Scale WAIS or WISC score was reported.

LIMITATIONS OF THE STUDY

The primary limitation of the study derived from the incompleteness of the data source chosen for the study. Case folders are submitted to VRU in extremely varied states of completion. The preadmission case review sheets used as the data source for the study were taken from information contained in the case file and therefore reflected the extent to which complete information was available in the folder. For example, one of the problems faced was the problem of how to deal with the frequent listing, "none given in folder." This phrase had two possible meanings. This phrase might have meant that the client actually had none of the behaviors or characteristics referred to, or the phrase might have meant that the information was not present in the folder and that the true status of the client with respect to the particular category of information was unknown. It was assumed for the purpose of this study that any such phrase or any blank on the preadmission case review sheet indicated that the client did not possess the particular behavior or characteristic. It should be pointed out that this lack of complete and clear information, while a definite technical problem, represents the usual state of affairs at the agency in question. Any attempt at initial selection or research based on applicants for admission to this agency will be subject to this type of problem.

A second limitation of the study resulted from the method of

identifying and scoring the category of moderate physical impairment. While in many cases the medical information clearly indicated that some limitation of function existed, in some cases the condition appeared to be severe enough to cause limitations but none were listed. In these cases a judgment was made by two rehabilitation counselors as to whether or not the client had a limitation of function such that he should be considered to have a moderate physical impairment.

There are also limitations posed by the sample selected. While theoretically the population from which the sample should have been drawn would be the population of all clients admitted to VRU since its inception in 1961, the purposes of the study were best served by obtaining a recent sample. The VRU program has changed and expanded greatly since 1961, and scrutiny of a group which encountered as close to current conditions as possible was desired. The compromise between recency and complete data mentioned previously had the following effect. Of the initial sample of one hundred eighty-six cases, twenty-seven were excluded because of incomplete information on the criterion variable. The sample size for all but three factors was one hundred fifty-nine. For the remaining three factors, the age-sex interaction categories used only males or females from the sample of one hundred fifty-nine. The result was a total of one hundred eleven males for the sixteen-year old male versus all other males tabulation and a total of forty-eight females for the over thirty-five-year old female versus all other females tabulation. The tabulation for IQ levels involved only the one hundred nine clients for whom WAIS or WISC scores were available. Three IQ levels were used instead of the two divisions made in the other tabulations, so that the one hundred nine cases were distributed among

six cells instead of four.

Chapter 2

REVIEW OF THE LITERATURE

The organization of this chapter follows two basic guidelines. First, of the many studies reviewed, only those reporting results on the factors under investigation here will be discussed. Several studies were found that had dealt with a multitude of characteristics of retarded clients and their ability to be vocationally successful (Elkin, 1968; Gibson, 1970; Stephens, 1968). However, many of the factors investigated by these studies would not normally be available upon application for admission to VRU, and some were factors related to performance after some length of time in a particular program. While these studies were indeed investigating relevant characteristics and in some cases produced very interesting and suggestive results, it remains the basic purpose of this study to look at the relationship between variables available upon admission and rate of success. For this reason, the results reviewed that did not pertain to the factors available upon application for admission and chosen for inclusion in this study are not discussed.

The second guideline for presentation of the pertinent literature is the preadmission case review sheet (Appendix A). The factors under investigation and the literature pertinent to them will be discussed in the order that these factors appear on the preadmission case review. The factors, in order of discussion, are sex, age, IQ, institutionalization in a facility for the mentally retarded, history of emotional

problems, prior work experience, and physical impairment. No study was found in which a history of antisocial behavior, a factor included in this study and identified on the preadmission sheet as a history of criminal conviction or incarceration, was investigated relative to vocational success.

The only significant finding reviewed relating sex to a measure of vocational outcome was reported by Dubrow (1960). He indicated that male sex is a favorable characteristic when the sexes are compared against the criterion of competitive employment. A VRU study (Schutz, 1966) indicated that there may be sex differences in the rate of success at VRU, but these findings were not statistically validated. Schutz' (1966) data showed that there was a larger percentage of males in the group considered unsuccessful in the VRU program than in the group considered successful. Whether the fact that eighty-two per cent of the group considered unsuccessful were males while only sixty-two per cent of the group considered successful were males is statistically significant for a sample size of forty was not reported. Kaufman (1970) and Madison (1964) reported no relationship between sex and employment status and success in community work status, respectively.

Age as a factor in vocational success was mentioned by several authors, but complete agreement on its significance as a predictor was not found. Song and Song (1969) stated that chronological age has a positive relationship to job efficiency in community employment. That is, the older the client, the greater his job efficiency. Dubrow (1960) suggested that a chronological age greater than twenty-two is a favorable characteristic when the criterion is competitive employment.

On the other hand, Elkin (1968) found no relationship between age and success on institutional job placements. A VRU study revealed an interesting age-sex interaction. The age-sex categories of males age sixteen and females over age thirty-five had much lower rates of success than did males and females of other ages (Tippit, 1970). As was true with sex, the relationship between age and measures of vocational success is unclear.

A considerable amount of information was found in the literature relating IQ as measured by various tests to some measure of vocational success. However, the results reviewed appeared to be quite contradictory. On the positive side, Jackson (1968) reported a positive relationship between IQ and employment adjustment. Kaufman (1970) found that the Full Scale IQ score on the Wechsler Adult Intelligence Scale (WAIS) was related to the criterion of having employment at the .01 level of significance. An additional finding reported by Kaufman (1970) indicated that the comprehension subtest of the WAIS added the greatest weight to a discriminant analysis of the data, a technique in which each variable is added singly to determine which variable reduced the error variance on the criterion the most in a single step. The Stanford-Binet IQ score was found to have a correlation of .63 with workshop success, while composite developmental ratings of the Bender-Gestalt test drawings had a correlation of .89 with the same criterion (Wagner and Hawver, 1965). A study by Madison (1964) revealed that a classification of subjects into the broad categories of middle-grade or high-grade borderline retarded produced a chi-square value significant at a .01 level, when success in a community work placement was used as a criterion. The manner in which

the distinction between high-grade and middle-grade subjects was made was not explained, although professional judgment was said to be used in addition to test scores.

But for every study with significant findings, there are others that find no relationship. For example, Elkin (1968) found that IQ was related to success on a sheltered work assignment, but did not find a relationship between IQ and success in community employment. Similarly, Dubrow (1960), Song and Song (1969) and Kaufman (1970) reported no relationship between assessed level of intellectual functioning and some form of community employment criterion. Bae (1968) studied the relationship between WAIS Verbal IQ, WAIS Performance IQ and WAIS Full Scale IQ and performance in vocational training areas similar to those in the VRU program. No relationship was found between good and poor performers in the training programs and any of the three WAIS test scores.

Institutionalization in a facility for the mentally retarded was a factor initially expected to be related to low rates of vocational success. Hobbs (1964) reported that institutionalized retardates differed from otherwise comparable retardates on several traits.

The institutionalized group was found to have a higher incidence of anti-social or immoral behavior, to have fewer educational opportunities, to have less professional help, to be more often from broken homes, to be less conforming to societal standards, and to have parents with less adequate educational background (p. 210).

The presence of such factors would appear to be unfavorable for vocational success. However, of the three studies reviewed that dealt with length of institutionalization and some form of vocational success, none indicated a negative relationship between length of institutionalization and vocational criterion (Elkin, 1968; Madison, 1964;

Song and Song, 1969). Song and Song (1969), in fact, found that the longer the length of institutionalization, the better the job efficiency in a community job. Elkin (1968) found no relationship between length of institutionalization and success in an institutional job, while Madison (1964) reported no relationship between length of institutionalization and success in a community work placement.

A history of emotional problems has often been investigated as a possible factor affecting vocational success. Gibson and Fields (1970) noted that emotional stability ratings were positively related to habilitation outcome. The greater the emotional stability of the client, the greater the chance of success in adjustment to community living and a community job. Stephens, Peck and Veldman (1968) found that the existence of emotional problems impaired success on seventeen criteria of vocational success. Dubrow (1960) also mentioned lack of emotional problems as a positive characteristic for success in a sheltered workshop. Song and Song (1969), however, found that bizarre or withdrawn behavior had no relationship to success in community employment. A study conducted at VRU (Schutz, 1970) indicated that the presence of emotional problems reduced the rate of success in the program, but there was no statistical analysis done to determine whether or not the results may have been due to chance.

Having a history of prior work experience is a factor of obvious face validity when trying to predict to a vocational criterion. Four studies reviewed examined prior work history and its relation to some vocational criterion. Madison (1964) investigated previous work history and found a positive relationship with success or failure of work placement, as did Song and Song (1969) with respect to job efficiency in

community employment and Gibson and Fields (1970) with respect to habilitation outcome. Dubrow (1960) also listed prior work as a factor indicative of success in competitive employment.

Only two studies reviewed dealt with physical impairment as a factor in vocational success, even though it is widely recognized that the incidence of accompanying physical conditions is greater for the mentally retarded population than for the population of normal intelligence (Madison, 1964; Stephens, Peck and Veldman, 1968). Madison (1964) found that the presence of an additional physical handicap was not related to the success or failure of work placement. Stephens, Peck and Veldman (1968), however, reported that physical size and stamina and hand coordination were related to higher rates of vocational success. Presumably, then, additional disabilities that would reduce the characteristics of size, stamina and hand coordination would adversely affect rates of vocational success.

As can be observed, the literature did not reveal a clear relationship between most factors and vocational success. Three factors--sex, IQ and length of institutionalization--showed either a positive relationship to the particular measure of vocational success, or no significant relationship at all. Two factors, age and history of emotional problems, bore either a negative relationship to the vocational criterion or bore no significant relationship to the criterion. Only one factor, previous work history, was consistent in its relationship to vocational criteria. A positive relationship was found in all studies relating prior work history to a measure of vocational success.

Chapter 3

METHODS AND PROCEDURES

As was mentioned previously, this study was designed to identify factors related to low rates of success in the VRU program. The approach taken to this problem will be discussed in this section in terms of the population and sampling procedures employed, the instrument used, the design of the study, the method of data collection and the data analysis techniques utilized.

POPULATION AND SAMPLING

The population with which this study was concerned was the population of mentally retarded clients who have been admitted to the VRU program in the years 1970-1973. In sampling this population, several factors were considered. The first of these was that a relatively large sample was needed to insure a reasonable number of cases in each of the subgroups to be identified. The second was that the sample should be relatively recent to minimize the possible effects of changes in program format and staff that might have occurred over long periods of time. The third factor considered was that the length of time between admission and closure of case records for these clients can cover a considerable period of time. A compromise between recency and complete information regarding successful or unsuccessful closure became necessary.

To satisfy these considerations insofar as could be, the entire

admissions list for the year 1971 was chosen as the sample. This insured an initial group of one hundred eighty-six clients and attempted to strike a fair balance between recency and attrition due to incomplete information. Those for whom closure information was incomplete were not included in the study.

MATERIALS AND INSTRUMENTATION

The instrument used as the source of data for the study was the preadmission case review, a summary sheet of information abstracted from the case file by the VRU social work staff. The preadmission sheet was developed by the VRU staff and has been used for several years as a method of recording the case file information in a standard format and disseminating case file information to other staff members.

This instrument had two advantages for the purposes of this study. First, the preadmission case reviews were available to the researcher through the VRU files, while the official case files from which the preadmission information was taken were not always available, often being located elsewhere in the state. Preadmission case reviews were located for all clients admitted to VRU in 1971.

The second advantage of this particular instrument lay in the standard format for presentation of the data. This standard format eased the task of scoring and subdividing the sample. Examples of the instrument and its format as well as examples of scoring for the various subgroups are found in Appendix A.

DESIGN OF THE STUDY

The purpose of the study was to identify client characteristics that can be identified upon admission to the VRU program. The characteristics so identified were then examined to see if any relationship exists between these characteristics and low rates of success in the VRU program. To accomplish this, the study was of necessity both descriptive and comparative.

The study was descriptive in that the characteristics must be identified, defined and their presence ascertained for each member of the sample. This was accomplished by use of an instrument of consistent format, defining the characteristics in terms of information obtained from the instrument, and using these definitions to identify client groups that possess and do not possess particular characteristics. One particular factor, IQ range, required an elaborate identification and definition. The procedure employed to effect this identification and definition is best discussed at this point.

The IQ range divisions employed in this study were based on inferences made from sample data. Two considerations were taken into account in defining these ranges. First, a grouping was desired that would permit a reasonable number of cases to fall in the upper and lower ranges, and would be based on some logical rationale. Secondly, an investigation of the possible variance introduced by the effects of standard error of measure was thought to be essential. Establishing definite boundaries invites error in classification of individual scores that must be considered.

The above considerations were dealt with according to the

following procedure. The standard error of the mean of the sampling distribution for IQ scores was calculated according to the formula $\sigma_{\bar{X}} = \frac{s}{\sqrt{N-1}}$, where $\sigma_{\bar{X}}$ is the estimated standard error of the sampling distribution, s is the sample standard deviation, and N is the total number of cases in the sample. The resulting value for $\sigma_{\bar{X}}$ was 1.098. Using this value to establish confidence limits at the ninety-five per cent level of confidence ($\lambda = .95$), it was found that the mean of the sampling distribution could be expected to fall between a raw score of 69.041 and 73.345, based on the formula below. The formula for establishing the confidence interval is $\underline{\mu} \bar{\mu} = \bar{X}_1 \pm z_c \sigma_{\bar{X}}$, where $\underline{\mu}$ and $\bar{\mu}$ are the lower and upper boundaries of the confidence interval desired, \bar{X}_1 is the mean of the sample test statistic, z_c is the standard score for the confidence interval desired, and $\sigma_{\bar{X}}$ is the estimated standard error of the mean of the sampling distribution. Because $\sigma_{\bar{X}}$ is small and the raw score range for the ninety-five per cent confidence interval is also small, it was concluded that the effect of the standard error of measure would also be small. The confidence interval values imply that ninety-five per cent of the time, variation in scores will still yield a parametric value between 69.041 and 73.345. These values would include variation caused by test fluctuations due to standard error of measure on individual test scores.

Since the true mean score should fall very close to the obtained sample value, and since the purpose of a sample is to make inferences regarding the population from which the sample was drawn, it has been empirically tested that it would be justifiable to set up criteria based on the sample data. This was done in the following manner. From a table of standard score values and areas under the

normal curve, a standard score value of $\pm .75$ was chosen. Approximately fifty-four per cent of the cases should fall between the two standard score values and constitute the middle range of scores, while approximately twenty-three per cent of the cases should fall in the upper and lower ranges. In terms of number of cases, approximately twenty-five cases should fall in the upper and lower ranges, thus reasonably meeting one of the considerations of concern at the beginning of this section. The raw score points corresponding to the standard score values of $\pm .75$ were calculated according to the formula $z = \frac{\bar{X} - X}{s}$, where z is the standard score value, \bar{X} is the mean of the sample, X is the raw score value, and s is the sample standard deviation. Solving for X with a standard score of $\pm .75$, the range boundaries were found to be Full Scale scores of 62 and below for the lower range, a Full Scale score of 63 to 79 for the middle range, and 80 and above for the upper range.

The study was also comparative in that these dichotomous groups were compared to each other statistically with respect to a standard of success. The comparison involved measuring the rate of success of the group with a given characteristic as compared to the rate of success of the group that does not have that characteristic.

DATA COLLECTION

The basic steps in data collection were the acquisition of the preadmission forms and the analysis of the information on the forms. The preadmission case review forms were provided by the Vocational Rehabilitation Unit, and included information on the entire admissions list for 1971.

Analysis of nine pieces of information corresponding to the factors stated in the hypotheses were carried out according to the definitions presented earlier. A given preadmission sheet was scored for sex, age, Full Scale IQ, work history, the presence or absence of a history of emotional disturbance or of institutionalization in a penal facility or state hospital for the mentally retarded, and the presence or absence of a vocationally significant physical handicap.

DATA ANALYSIS

To determine if there was a significant difference between client groups with and without a particular characteristic with respect to success in the VRU program, the chi-square technique was used. Chi-square provides a way to analyze data that are expressed as frequencies. Since it was necessary to use sampling in this study, chi-square was used to judge whether deviations of sample frequencies from those expected or hypothesized were due to sampling error or if such deviations were significantly different from those expected.

The formula for finding chi-square is as follows:

$$\chi^2 = \frac{(O_f - E_f)^2}{E_f} .$$

O_f represents each observed frequency and E_f is the symbol for the expected frequencies that correspond with those observed. The formula indicates that these steps are to be carried out:

1. The difference between each observed frequency and its corresponding expected frequency is found by subtracting the latter from the former.

2. Each difference is squared and then divided by the expected frequency in each case.
3. The values found in step 2 are summed.

The amount that observed frequency (O_f) deviates from expected frequency (E_f) was found.

If chi-square χ^2 was large enough, the null hypothesis would be rejected at some prescribed level of confidence. Null is hypothesized since if E_f 's were the same as O_f 's, χ^2 would equal zero. Sampling error can cause O_f 's to differ from E_f 's to some extent; but when differences between observed frequencies and expected frequencies are great--as measured by χ^2 --in comparison to the expected frequency, a conclusion was drawn that the differences probably are not a result of sampling error: the null hypothesis is rejected. When $O_f - E_f$ differences are small compared to E_f 's, it is concluded that the differences are probably a result of sampling error.

Degrees of freedom (df) are found by taking the number of rows minus one times the number of columns minus one. The formula used was as follows: $df = (r - 1) (c - 1)$.

One row and one column in a diagram or analysis table are dictated by the number of responses. They are not free to vary but are fixed by the total. Since there were two rows and two columns, the number that were free to vary was shown: $df = (2-1) (2-1) = (1) (1) = 1$.

Chapter 4

ANALYSIS OF DATA

The study attempted to ascertain which, if any, of nine factors had a relationship to success in a vocational evaluation and training program. Data were collected as described in Chapter 3 relative to the presence or absence of each of the nine factors. This chapter will discuss the relationship between each of these factors and the criterion of success in the VRU program.

RESPONSE ANALYSIS

As previously described in Chapter 3, the entire admissions list for 1971, consisting of one hundred eighty-six clients, made up the original sample. For six of the nine factors, complete data was available for one hundred fifty-nine cases. For the two age-sex categories, only the appropriate number of males or females from the group of one hundred fifty-nine cases was used. For the remaining factor, level of measured IQ, a definition restricting the tests to be included produced a sample of one hundred nine clients. While no bias as a result of sample deletion was detected by inspection of the data, the effect of the deletion upon the results is not known.

STATISTICAL ANALYSIS

The data were used to sort the client sample into two groups, those with the presence of a particular factor and those who did not possess that factor. Differences between these "have" and "have-not" groups with respect to successful outcome in the VRU program were the basic concern of this analysis. Exceptions to this general approach were the age-sex interaction categories, which used only the appropriate number of male or female clients, and the analysis for IQ level, which used a tripartite division.

Because sampling was used and because the data could be reported as frequencies in the two categories, the chi-square statistic was employed. A discussion of this technique and the formula for its calculation were discussed in Chapter 3.

Sex and Success in the VRU Program

The chi-square statistic was the statistical tool employed to test the null hypothesis for this factor. No significant difference in rates of success in the VRU program was predicted as a function of sex. Of the total sample of one hundred fifty-nine, one hundred eleven were male and forty-eight were female. Fifty-seven males were found to be successful while fifty-four males were found unsuccessful. Following the same pattern, twenty-seven females were successful in the program while twenty-one females were not successful.

Table 1. Chi-square Table Involving Sex and Success in the VRU Program

	Successful	Unsuccessful	Total
Male	57 (58.64)	54 (52.36)	111
Female	27 (25.36)	21 (22.64)	48
Total	84	75	159

$$df = 1 \quad \chi^2 = 0.322$$

As a result of the small differences between the observed and expected values, the chi-square value obtained was 0.322. The tabled value for one degree of freedom and significance at the .05 level is 3.84. The obtained value of 0.322 did not fall in the critical region, so the hypothesis was accepted in its null form. The conclusion was that there were no significant differences between males and females with regard to success in the VRU program.

Age-Sex Interaction Factors and Success in the VRU Program

Two age-sex interaction factors were studied. It had been reported (Tippit, 1970) that sixteen-year old males and over 35-year old females had much lower rates of success in the VRU program than did men and women of other ages.

For males, the hypothesis that sixteen-year old males did not differ significantly from other males with regard to success in the VRU program was tested for significance with the chi-square technique. Of the ten sixteen-year olds in the sample, three were successful and seven were unsuccessful. Reversing this trend, fifty-four males of other ages were successful while forty-seven were not successful.

Table 2. Chi-square Table for Age-Sex Interaction Factor, Sixteen-Year Old Males and Success in the VRU Program

	Successful	Unsuccessful	Total
16-Year Old Males	3 (5.14)	7 (4.86)	10
All Other Males	54 (51.86)	47 (49.13)	101
Total	57	54	111

$$df = 1 \quad \chi^2 = 2.014$$

While the trend of the distribution was in the direction of a positive relationship between being unsuccessful and being a sixteen-year old male, the chi-square value obtained was only 2.014. With one degree of freedom, a value of 3.84 is required to reach significance at the .05 level. The hypothesis must be accepted in the null form, i. e., there was no significant relationship between being a sixteen-year old male and success in the VRU program.

A similar analysis was carried out for women over age thirty-five as compared to women of younger age. Of only six women over thirty-five, three were successful and three were unsuccessful. In comparison, twenty-four younger women succeeded in the VRU program while eighteen did not succeed.

Table 3. Chi-square Table for Age-Sex Interaction Factor, Over 35-Year Old Females and Success in the VRU Program

	Successful	Unsuccessful	Total
Over 35 Females	3 (3.38)	3 (2.63)	6
All Other Females	24 (23.63)	18 (18.38)	42
Total	27	21	48

$$df = 1 \quad \chi^2 = 0.628$$

The obtained value for chi-square for the tabled data was 0.628. A value of 3.84 was required for significance at the .05 level with one degree of freedom. These results did not justify accepting the hypothesis in any but the null form. There did not appear to be a significant difference between the two groups of females with regard to success in the VRU program.

History of Emotional Disturbance
as a Factor in Success in the
VRU Program

Forty-two clients were identified as having a history of emotional problems. The chi-square technique was used to compare these clients with those clients who did not have such a history. Only sixteen clients with a history of emotional problems were successful while twenty-six clients with such a history were unsuccessful. The comparable figures for clients without such a history were sixty-eight successful and forty-nine unsuccessful.

Table 4. Chi-square Table for History of Emotional Problems Factor and Success in the VRU Program

	Successful	Unsuccessful	Total
Psychiatric History	16 (22.19)	26 (19.81)	42
No Psychiatric History	68 (61.81)	49 (55.19)	117
Total	84	75	159

$$df = 1 \quad \chi^2 = 4.975$$

The chi-square calculated for these data was 4.975, which fell within the critical region for significance at the .05 level. The critical region for one degree of freedom and .05 level of significance is a chi-square value of 3.84 or greater. The hypothesis

was of necessity rejected in its null form. For this data, it was concluded that there was a significant relationship between a history of emotional problems and a lower rate of success in the VRU program.

History of Institutionalization
in a State Hospital for the
Mentally Retarded as a Factor in
Success in the VRU Program

The sample was also divided into groups based on evidence of institutionalization in a state hospital for the mentally retarded. Again, those clients with such a history were compared to those without such a history. Sixteen clients with a history of institutionalization for mental retardation were identified, of which five were successful in the VRU program and eleven were not. Seventy-nine clients without a history of institutionalization in a hospital for the mentally retarded were successful while sixty-four were not.

Table 5. Chi-square Table for History of Institutionalization in a State Hospital for the Mentally Retarded Factor and Success in the VRU Program

	Successful	Unsuccessful	Total
Inst. History	5 (8.45)	11 (7.56)	16
No Inst. History	79 (75.55)	64 (67.45)	143
Total	84	75	159

$$df = 1 \quad \chi^2 = 3.308$$

The calculated chi-square value of 3.308 did not fall into the critical region of 3.84 or greater, $df = 1$, p less than or equal to .05. Therefore, the hypothesis was accepted in its null form and the conclusion drawn that there was no relationship between the presence

or absence of a history of institutionalization in a state hospital for the mentally retarded and success in the VRU program. It should be noted from the data, however, that there was a trend in the direction of lower rates of success for those with a history of institutionalization.

History of Antisocial Behavior
as a Factor in Success in the
VRU Program

Again the chi-square statistical procedure was applied to a "have or have-not" situation. The sample was classified into a group which had a history of incarceration in a penal institution and a group which did not. Twelve cases having such a history were identified. Three of these twelve cases were successful at VRU while nine cases were unsuccessful. Of the remaining group of one hundred forty-seven clients, eighty-one were successful and sixty-six were not.

Table 6. Chi-square Table for History of Antisocial Behavior Factor and Success in the VRU Program

	Successful	Unsuccessful	Total
Hist. of Anti-soc. Behavior	3 (6.34)	9 (5.66)	12
No Hist. of Antisocial Behavior	81 (77.66)	66 (69.34)	147
Total	84	75	159

$$df = 1 \quad \chi^2 = 4.035$$

The difference of 3.36 between expected and observed frequencies combined with the small sample size of those with a history of antisocial behavior produced a chi-square value of 4.035. This score fell within the critical region of 3.84 or greater, $df = 1$, p less than or equal to .05, meaning that the hypothesis must be

rejected in its null form. From this data, we may say that there did appear to be a significant relationship between a history of antisocial behavior and a lower rate of success in the VRU program.

Moderate Degree of Physical
Impairment as a Factor in
Success in the VRU Program

Sixty-four clients in the sample were identified as having a physical handicap severe enough to be included in this category. These clients were compared to clients without a moderately handicapping condition with the chi-square technique as before. Twenty-nine of the clients with an additional handicapping condition succeeded in the VRU program while thirty-five were not successful. For clients without an additional handicap, the results were fifty-five successful and forty unsuccessful.

Table 7. Chi-square Table for Moderate Degree of Physical Impairment Factor and Success in the VRU Program

	Successful	Unsuccessful	Total
Physical Impairment	29 (33.81)	35 (30.19)	64
No Physical Impairment	55 (50.19)	40 (44.81)	95
Total	84	75	159

$$df = 1 \quad \chi^2 = 2.43$$

The critical region for one degree of freedom and a level of significance of .05 is a value of 3.84 or greater. The calculated chi-square value was 2.43, which did not fall into the critical region. The null hypothesis was therefore accepted.

Prior Work Experience as a Factor
in Success in the VRU Program

The chi-square technique was also employed to test the relationship between the presence or absence of prior work experience in a client's record and success in the VRU program. One hundred six of the one hundred fifty-nine clients in the sample were identified as having some prior work experience. Sixty-three of those clients with prior work experience were considered successful while forty-three were not considered successful. For those clients without work experience, twenty-one were successful and thirty-two were not.

Table 8. Chi-square Table for Prior Work Experience Factor and Success in the VRU Program

	Successful	Unsuccessful	Total
Prior Work Exp.	63 (56.00)	43 (50.00)	106
No Prior Work Exp.	21 (28.00)	32 (25.00)	53
Total	84	75	159

$$df = 1 \quad \chi^2 = 5.565$$

A significant relationship was found to exist between prior work experience and success in the VRU program. Those clients with prior work experience had a significantly higher rate of success than did those without such prior experience. This conclusion was reached because the obtained value for chi-square of 5.565 fell well within the critical region of chi-square greater than or equal to 3.84, $df = 1$, p less than or equal to .05. The null hypothesis was therefore rejected in favor of the relationship mentioned above.

Upper, Middle and Lower IQ Range
as a Factor in Success in the
VRU Program

In analysis of this factor, three divisions of the sample group were made. This procedure resulted in a table of two columns and three rows, with two degrees of freedom as described in Chapter 3. Twenty-five of the one hundred nine clients for which comparable data was available fell into the lower IQ range. Thirteen of these clients were successful in the VRU program, while twelve were not. The reverse was obtained for the fifty-eight clients in the middle IQ range. Twenty-five of these clients were successful while thirty-three were unsuccessful. In the upper IQ range, successes again outnumbered those who were unsuccessful. Twenty of the twenty-six cases in the upper range were successful.

Table 9. Chi-square Table for IQ Range and Success in the VRU Program

	Successful	Unsuccessful	Total
Lower IQ Range	13 (13.3)	12 (11.7)	25
Middle IQ Range	25 (30.86)	33 (27.14)	58
Upper IQ Range	20 (13.83)	6 (12.17)	26
Total	58	51	109

$$df = 2 \quad \chi^2 = 8.273$$

The chi-square value obtained was significant at the .05 level, the calculated value of 8.273 falling in the critical region ² greater than or equal to 5.99 for two degrees of freedom. The null hypothesis was therefore rejected and the conclusion reached that a significant difference did exist between clients in the various IQ ranges and rates of success in the VRU program.

Additional Data Analysis

Gibson and Fields (1970) reported a finding that led to an additional analysis of the data obtained in the study. This finding was to the effect that experts often predict habilitation outcome based on factors unrelated to actual job success. In other words, considerations significantly related to expert prediction were often not significantly related to community criteria of job success. The implication for the present study was that perhaps the characteristics found to be related to success in the VRU program (which was an expert prediction of future community job success) might not be related to actual success in employment.

To investigate this possibility, a second criterion was chosen that would more accurately reflect success in a community job. The criterion chosen was closure of the rehabilitation case in employed status, referred to as status "26." This status was taken to mean that the client was employed at his maximum capacity and had successfully maintained his employment for at least thirty days. Some cases closed in this status may have been homemakers, unpaid family workers or working in a sheltered workshop, but which cases were so employed was impossible to tell. For purposes of this analysis, the assumption was made that all cases were successfully employed in a job in the community.

The exact procedure described in Chapter 3 and Chapter 4 to this point was followed using the new criterion of success and the new results compared to the results reported above. While the chi-square values for the various factors changed, only for one factor was the change great enough to change significance.

For the factor of range of IQ as related to success in the VRU program, a significant relationship at the .05 level was found when the criterion was success in the VRU program. However, when the criterion became case closure "26" and presumably successful community employment, the results were quite different. For the lower IQ range group of twenty-five clients, there were still twelve successful cases and thirteen unsuccessful cases. For the fifty-eight clients in the middle IQ range, the balance shifted from the previous finding of twenty-five successes and thirty-three failures for the criterion of success in the VRU program to one of twenty-eight successes and thirty failures when the criterion was closure status "26." In the upper IQ range, only fourteen cases were found to be successful with the new criterion, while twelve cases proved to be unsuccessful. The distribution of successes and failures in all three IQ ranges was very close to a fifty-fifty split, and the observed values were all quite close to the expected frequencies calculated by the chi-square procedure.

Table 10. Chi-square Table for IQ Range and Case Closure "26"

	Closed "26"	Not Closed "26"	Total
Lower IQ Range	12 (12.39)	13 (12.61)	25
Middle IQ Range	28 (28.73)	30 (29.27)	58
Upper IQ Range	14 (12.88)	12 (13.11)	26
Total	54	55	109

$$df = 2 \quad \chi^2 = 0.25$$

Using the criterion of closure status "26," the computed chi-square value of 0.25 was not significant at the .05 level. For two

degrees of freedom, the critical value is 5.99. There did not appear to be any significant difference between clients in the various IQ ranges with respect to the criterion of case closure "26." While level of IQ appeared to be significantly related to expert prediction, this factor was not significantly related to actual employment outcome.

All other factors, when tested against the new criterion, produced results in agreement with the previous results. It may be concluded that for all factors save IQ range, the relationship of a particular factor to success in the VRU program is the same sort of relationship that factor has to the criterion of successful case closure. For this reason, tabular material and discussion will not be presented here. Only the factor of IQ produced new results of importance.

To recapitulate, the null hypothesis was rejected and significant relationships found for the factors of history of emotional disturbance, history of antisocial behavior, prior work experience and level of IQ when success in the VRU program was the criterion. The relationship between all factors and a second criterion measure, successful case closure "26," yielded the same results, except that level of IQ was found not to be significantly related to this criterion. The conclusions and recommendations based on this analysis will appear in Chapter 5.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has attempted to identify factors related to success of mentally retarded clients in a vocational evaluation and training program. This chapter will summarize the procedures used to address the problem and the findings derived from the study. Conclusions made on the basis of the findings and recommendations for future use and research are also presented.

SUMMARY

The preadmission case summaries of one hundred fifty-nine mentally retarded clients admitted to a vocational evaluation and training program in 1971 were reviewed. Information on nine factors thought to be related to a criterion measure of success was obtained. The relationship between the factors and the criterion measure was analyzed using the chi-square technique. The factors identified for inclusion in the study were sex, two age-sex interaction factors, IQ, previous work history, history of emotional problems, evidence of institutionalization in a hospital for the mentally retarded, history of antisocial behavior, and presence of a vocationally significant handicap. For all factors save IQ, the cases were distributed among the four cells of a two-by-two table based on status with regard to the factor involved and status with regard to the criterion measure. The IQ factor was

developed into a two-by-three table as a tripartite division of IQ range was employed.

No significant relationship was found between the factors of sex, sixteen-year old male versus all other males, women over thirty-five versus younger females, institutionalization in a facility for the mentally retarded, and presence of an additional physical handicap. A negative relationship was found between history of emotional problems and history of antisocial behavior and the criterion measure. That is, clients with either of the two factors tended to have lower rates of success in the VRU program. Clients with a history of prior work experience showed a significantly higher success rate in the program. The IQ factor also yielded a significant chi-square value. However, the tabulation revealed that both the lowest IQ range and the highest IQ range had more successful clients than unsuccessful clients, while the reverse was true of the middle IQ range.

A second chi-square analysis was done using a criterion of case closure rehabilitated (status "26"), which was presumed to be a measure of successful community employment. This was done to guard against the possibility that factors related to expert prediction of success (the criterion of success in the VRU program and consideration for job placement) may not be those related to success in community employment. All relationships between the factors and the criterion of closure status "26" were identical in nature to the relationships found when the criterion was eligibility for job placement, except for IQ. When IQ range was compared to closure status "26," there was no significant relationship as measured by the chi-square method.

CONCLUSIONS

The organization of this section follows the nature of the results obtained. First, there were five factors examined that showed no relationship to either criterion employed in the study. The chi-square values for the factors of sex, sixteen-year old males versus all other males, women over thirty-five versus younger women, history of institutionalization in a facility for the mentally retarded, and presence of an additional physical handicap did not reach the critical value necessary for significance at the .05 level. The only conclusion tenable is that status with regard to these factors had no relationship to rates of success in the VRU program or to rates of success in terms of case closure rehabilitated. These factors, according to this study, did not aid significantly in predicting vocational success or failure by either criterion.

Two factors, history of emotional problems and history of anti-social behavior, bore a negative relationship to both criteria. It would seem that prior knowledge of these factors did aid in predicting poor performance in the VRU program and in predicting failure to be closed rehabilitated by the state Vocational Rehabilitation Agency.

A history of previous work experience allowed for a significantly higher rate of success both in the VRU program and with regard to eventual case closure. It would appear that knowledge of the existence of a prior work history would significantly improve prediction of success in the VRU program and case closure rehabilitated.

What to conclude in the case of IQ in relation to success in the VRU program is a good question. A significant variation from expected

values was found, but the researcher was not prepared for the eventuality of the middle IQ range having the lowest success rate. Several tenuous suggestions might be made at this point. The significant chi-square value might have derived from the difference between the rate of success of the high IQ group compared to the combined middle and low IQ group. That is, there may have been no significant difference between the middle IQ group and the low IQ group, but a significant difference between the high IQ group and the rest of the pack, yielding a significant chi-square value for the whole table. A second possibility is that through some vagary of sampling, there may have existed a concentration in the middle IQ group of other factors unfavorable to success that accounted for the low rate of success in that group. A third possibility is that this result is peculiar to the VRU program and selection process. The finding that IQ range had no relationship to rate of closure rehabilitated and that the percentage of cases closed successfully rehabilitated was extremely uniform for all IQ ranges indicated that the relationship found when the VRU program decision was the criterion did not extend to field placement and closure. In any case, it can be concluded that there was a significant difference between success rates in the VRU program as a function of IQ range. The upper IQ range showed the highest rate of success while the middle IQ range showed the lowest success rate, based on the tabulated data. The impact of this finding is unclear. Further, IQ range had no relationship to the second criterion of successful case closure rehabilitated.

RECOMMENDATIONS

This section presents three main areas of information. First, the results and conclusions of the study are discussed in terms of degree of fit with other studies in the literature. Secondly, the implications of the study for the VRU program are discussed. Finally, suggestions for changes in the approach to the problem of developing a sufficiently precise predictor for screening purposes will be presented.

Some of the findings of this study were not consistent with other reports in the literature. Dubrow (1960), for example, reported that being of male sex was a favorable characteristic when the criterion was competitive employment. The VRU indication was that being a male was related to being unsuccessful in the program. This study indicated that sex had no relationship to either criterion, a finding which agrees with Madison (1964) and Kaufman (1970).

With regard to age as a factor, the studies reviewed are not directly comparable to this study because of the use of different age ranges and the use of age-sex interaction groups in the present study. This study indicated that lower rates of success for the sixteen-year old female groups were not statistically significant. It is likely that the previous VRU research (Tippit, 1970) would not have yielded significant results had the hypotheses been tested statistically.

As has been previously discussed, the findings with regard to IQ and success in the VRU program were quite unexpected. No study reviewed reported that a middle range IQ group had the lowest success rate. The findings concerning IQ and case closure rehabilitated (and by assumption, competitive employment) were consistent with Elkin's

1968 study as well as several others (Dubrow, 1960; Song and Song, 1969; Kaufman, 1970). Contradictory evidence to the effect that higher IQ was related to greater job success was reported by Jackson (1968), Kaufman (1970), Wagner and Hawver (1965), and Madison (1964). In view of the divergence of opinion in the literature, probably the best supposition to be made is that the results found are highly dependent on the criterion used, the method employed in the study, and the specific characteristics of the clients and agency involved in the study.

Results found for history of emotional problems and institutionalization in a facility for the mentally retarded were in line with the findings of other studies. Three studies (Gibson and Fields, 1970; Stephens, Peck and Veldman, 1968; and Dubrow, 1960) found that emotional problems interfered with criteria of vocational success. One study found no relationship between emotional problems and success in community employment (Song and Song, 1969). In the present study, as in the three studies reviewed in this area, (Elkin, 1968; Madison, 1964; Song and Song, 1969), no negative relationship was found between length of institutionalization in a hospital for the mentally retarded and any criterion of vocational success.

The results of the present study for the factors of prior work history and presence of a physical disability also parallel the findings in the literature. Prior work history was positively related to success in the VRU program and case closure rehabilitated, a finding in line with all four studies reviewed on the subject (Madison, 1964; Song and Song, 1969; Gibson and Fields, 1970; and Dubrow, 1960). Physical disability did not show a significant relationship to either criterion of vocational success, a finding similar to that of Madison (1964). Stephens, Peck and

Veldman (1968) found that certain physical characteristics were related to vocational success, but these characteristics were not disabling conditions.

Despite finding some statistically significant relationships and the general conformity of the results to previous studies, the study did not accomplish one of its objectives. When considering the humanitarian nature of the agency involved and the purpose for which VRU exists, it becomes obvious that none of the factors involving low rates of success can be used for selection purposes. The number of clients who could be successful despite a history of emotional problems or antisocial behavior is too great.

The most important and practical explanation of the significant findings and perhaps the most valuable aspect of the study as far as VRU is concerned, is that clients who have a history of acting out behavior do not do well in the VRU program. As long as the supply of clients without such behaviors is adequate, those clients who show such problems in the program can be terminated and dealt with in a sheltered workshop or other appropriate situation. If, however, the proportion of VRU clients having such acting out behaviors increases substantially, the program may have to adapt itself to these clients.

As the study did not achieve the objective of determining factors that could be used to select clients with a great degree of accuracy, it is felt that suggestions should be made for future research into the matter. First, it may be of benefit to use a larger sample, in order to increase the number of clients in some data cells. For instance, there were only six women over thirty-five to divide between two cells of a two-by-two table. The age-sex categories might be

redefined to include more members in the various conditions and these new definitions tested statistically.

A third way of approaching the problem might be to use a combination method of scoring. Clients with no factors hypothesized to be related to low rates of success could be compared to clients who possessed one, two, three, etc., of these factors in terms of success in the VRU program and in competitive employment. This procedure might yield a method of prediction and screening based on the number of strikes against a client, and would take into account the interaction of several variables.

Finally, it would be well to investigate the discriminant analysis method employed by Kaufman (1970). The technique is one in which each variable is added singly to determine which variable reduced error variance on the criterion the most in a single step. Perhaps upon investigation it may be found that this technique could be used to define combinations of variables that would have a predictive power precise enough to be used in a rehabilitation setting.

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APPENDIX A

Preadmission Case Review

By: Marilyn Pflughoft
Social Worker

Name: Kenneth E. Falk Date of Adm: 10-6-71 Sex: M Race: Caucasian
& Wt: 5' 8" 120 lbs. Religion: Unknown Date of Birth: 9-12-50
County of Origin: Dickinson Social Security Number: 512-58-0936

Referred by: Jerry Haney

Responsible Person: Mr. and Mrs. August Falk
218 South East Street
Herington, Kansas 67449
Phone: BL 8-2891

Highest School Grade Achieved: 8th grade

Most Recent I.Q.: WAIS VS 93, PS 91, FS 91 September 1968 Reineman

Achievement Test Scores: WRAT Reading 7th grade level, Arith. 6th grade level,
Spelling 6th grade level

Suspected Cause of MR: Congenital

Institutionalization: VRU August to October 1968

Jobs Held: Grit Paper - \$3.00 week wages - at the present time

Lutheran Nursing Home - \$1.60/hr - Janitor for one week

Length of Time Since Last Job: See above

Behavior Problems: None anticipated

Family Situation: The client is the older of two children born to August and Irma Falk. The father is retired; the mother is a housewife. Family income is from Social Security and a VA pension. The client's younger brother is age 17 and in 10th grade.

Medical Problems: Client is spastic, has difficulty in ambulation, impaired coordination in the upper extremities, and finer digital movements are missing. He is a former VRU client and work limitations have already been determined. Medical consultant cleared client and suggested that VRU staff members observe work limitations previously established at VRU.

Preadmission Case Review

By: Claire Friedman
Social Worker

Name: Deanna Bader Date of Adm: 9-15-71 Sex: F Race: Caucasian
& Wt: 5' 3" 167 lbs. Religion: Nazarene Date of Birth: 2-16-51
County of Origin: Osborne Social Security Number: 512-58-9278

Referred by: Jerry Haney
Responsible Person: Mrs. Martha Hartsock
Box 52
Alton, Kansas 67623
Phone: 984-2223

Highest School Grade Achieved:

Most Recent I.Q.: WAIS VS 61, PS 67, FS 61 11-5-69

Achievement Test Scores: Level II with psychogenic overlay

Expected Cause of MR: Congenital

Institutionalization: Parsons State Hospital and Training Center 9-19-59 - 11-15-69
VRU 11-15-69 - 1-27-70

Behavior Problems: Client tends to be quite immature

Family Situation: Client's natural parents are divorced and her mother is remarried. Client has had a great deal of difficulty getting along with her step-father and therefore cannot reside in her mother's home. Client's mother feels that her natural father is a bad influence on client. Since she has been in the Pioneer Nursing Home, client has been seeing her father periodically. Since client left VRU she has been a patient in a nursing home and has been quite unhappy there.

Medical Problems: Client's physical condition is essentially normal. There is a history of an abnormal EEG and Medical Consultant felt that this should be followed up by a repeat EEG after admission.

Preadmission Case Review

By: Paul H. Galbraith
Social Worker

Name: Danny Jordan Date of Adm: 3-31-71 Sex: M Race: Negro
& Wt: 5' 7" 130 lbs. Religion: Protestant Date of Birth: 1-3-53
County of Origin: Shawnee Social Security Number:

Referred by: Boys Industrial School

Responsible Person: Boys Industrial School - Vivien Davis, Social Worker

Mother: Oneada Walker
1053 N. Main
Wichita, Kansas

Highest School Grade Achieved: 10th grade

Most Recent I.Q.: WISC January 1970 VS 73 PS 72 FS 70

Achievement Test Scores: Not in file

Suspected Cause of MR: Psycho-Social deprivation

Institutionalization: BIS from 9-30-69 to present time

Jobs Held: In the past he worked part-time as a dishwasher

Length of Time Since Last Job: Unknown

Behavior Problems: He was committed to BIS after having stolen tools from a store and a bicycle. At school in Wichita he reportedly was physically aggressive toward his peers and became such a problem that he was finally referred to BIS. Since being at BIS (where he was found to be severely emotionally damaged), he has not acted out in a physically aggressive way.

Family Situation: Danny comes from a broken and severely disturbed home situation (see the file for details). It has been strongly recommended that he not be placed in Wichita following his training at VRU. Danny's father is deceased. His mother has been married two times since and divorced both times. There are four children in the home. The family is supported by ADC.

Medical Problems: Danny's physical condition is good. Because of the reported emotional problems, Dr. Stein has suggested that he be seen by Dr. Dunagin.