

THE UNIVERSITY OF MANITOBA

A STUDY OF THE SOCIAL ADJUSTMENT OF TRAINABLE  
MENTALLY RETARDED ADOLESCENTS KNOWN TO THE  
KINGSMEN SCHOOL OF GREATER WINNIPEG, IN  
RELATION TO FOUR SELECTED VARIABLES

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by

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## ABSTRACT

This study was carried out in Winnipeg, Manitoba between October, 1966 and April, 1967. It focused on the relationship between the social adjustment of forty trainable mentally retarded adolescents attending the Kinsmen School of Greater Winnipeg, and the other selected variables of: sex, ordinal family position, socio economic status, and duration of attendance at Kinsmen School.

Data was obtained by the administration of a schedule and the Vineland Social Maturity Scale in direct interviews with the parents of the subjects. The subjects were chosen from the enrollment of the adolescent children attending the Kinsmen School and living in Greater Winnipeg.

The findings appeared to indicate that there was no significant relationship between the Social Quotient of the trainable mentally retarded adolescents and the four other variables. Although trends were noted in the relationship of social adjustment to ordinal family position and in a limited way to socio economic status and sex, the limited size of the sample and certain extraneous factors tended to preclude drawing firm conclusions from the data.

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## CHAPTER I

### INTRODUCTION

This study is intended to consider the relationship between certain factors in the social environment of a number of mentally retarded individuals, and their level of social maturity, or social adjustment.

Theories underlying social work practice, emphasize that no one factor can be totally determinative of social behaviour, but that behaviour is the individual's purposive attempt to reconcile the demands, and needs of the physiological, intrapsychic and social factors, in the light of previous life experience. Mental subnormality is only a factor in one area of this interactional field, although, due to this physiological condition, there are considerable readjustments in the other areas. The personal identity and the social expectations of a retarded child are considerably different from those of a normal child. However, many people seem to feel that the fact of mental subnormality is totally determinative of a particular level of inadequate functioning. They do not recognize, or admit to the secondary causation, when the retarded individual is relegated to social roles which amplify his limitations, and prescribe certain behaviour and forms of interaction which impede the development of his self identity as an individual, and eventually, as an adult.

To fully explore the causative influences underlying the social behaviour of a retarded person is far beyond the scope of this study. However, it will isolate a small aspect of this. If it were true, as some-

times believed, that the basic mental equipment is the only factor which controls the adjustment level of the retarded, then there will be no statistical relationship between their social maturity, and such social role determinants as ordinal family position, sex, and socioeconomic class; and the amount of planned opportunity and encouragement to function as an independent individual, such as is received at a training school.

The results of the present study are by no means sufficient grounds to plan a controlled life experience for the retarded child, but it may provide a stepping stone in that direction. It points toward the belief that prevention and amelioration of the social-psychological-physiological condition referred to as mental retardation does not only lie in overcoming the defects in brain physiology, but also in controlling the life experiences. It may also indicate some areas where further research into social causation should be directed.

The time during which this study took place was October, 1966 to April, 1967.

The study was conducted in the geographical area served by the Kinsmen School for Retarded Children located on Notre Dame Avenue, Winnipeg, Manitoba. The particular focus was on the homes and families of a number of children attending the school. These homes were distributed throughout the Metropolitan area, and included a wide range of social, financial, and ethnic circumstances.

A sample of forty trainable mentally retarded adolescents, age thirteen to seventeen as of September 1st, 1966, was selected from those attending Kinsmen School. Those who displayed significant behaviour disorders, such as cerebral palsy, and epilepsy, and those who were only at-

tending for assessment purposes were excluded from the sample group, as were those where there was more than one retarded child in the nuclear family.

There are several limitations introduced by the nature of the sample group. The population at the school may not be representative of trainable mentally retarded children in general. Certain selection procedures, and the reaction of certain parents, might tend to eliminate those children who were at the two extremes, of very inadequate, or particularly adequate functioning. Certain ethnic and social class backgrounds may tend to be underrepresented. Those families which keep their children at home, for a variety of reasons, may provide quite different role expectations of their children than those who allow or encourage school attendance. There were a number of families of children attending the school, who declined to participate in the study. There may again be some overall differences in this group. Together, these factors may make it impossible to generalize the specific findings from the sample population, to the general population of trainable mentally retarded adolescents and their families. Nevertheless, the correlations which may be discernable within the sample group can still retain considerable reliability and validity.

The rather limited size of the sample group, which was so chosen largely due to time considerations, may be somewhat of a limitation on the reliability of the findings.

Any inadequacies inherent in the tools used for measuring social maturity, and socio economic status, will also limit reliability.



### Hypothesis

There is a significant relationship between the social adjustment of forty trainable mentally retarded adolescents enrolled in the Kinsmen School, and their: sex, ordinal family position, socio economic status, and duration of attendance at Kinsmen School.

As stated earlier, it is believed that role determinants and previous life experiences, as well as mental endowment, are factors in influencing behaviour. As it is also believed that the mentally retarded have an internal principle of organization, variously referred to as the self, or ego, it is expected that there will be a general consistency in the individual behavioural pattern. Thus, specifically observed incidents of behaviour can be generalized into an ongoing concept of "social adjustment." Just as the social determinants operate in a behaviour incident, they will have an ongoing influence in the social adjustment. Although there is no simple cause and effect relationship between these influences and the resultant behaviour, it is expected that generally certain types of influences will tend to either enhance or impede social adjustment. In a relatively large sample group, where other influences tend to balance out, this tendency should become apparent.

### Sub-Hypotheses

1. Female trainable mentally retarded adolescents will display better social adjustment than will male trainable mentally retarded adolescents.

It is believed that the social role expectations differ significantly for the male and for the female. It is somewhat more acceptable for a female to be more dependent, less aggressive and outgoing, and less self sufficient. Therefore the female may see herself as approximating society's expectations whereas the male may tend to a greater extent to

see the discrepancy between his functioning and society's expectations of him. This greater acceptance of self may provide a basic security and identity out of which an even more adequate meeting of social expectations will proceed. There may be less pressure of unreasonable expectations put on the female, so she may experience less frustration. In studies, outlined in the following chapter, there is some empirical evidence to support this hypothesis.

2. The higher the ordinal family position of the trainable mentally retarded adolescent, the lower is his social adjustment.

An oldest child does not have an older sibling on whom to pattern his behaviour. The parental expectations are frequently quite high, while their child-rearing experience is at a minimum. Subsequent children benefit from more realistic expectations, from the pattern of behaviour to follow, and they are able to relate their level of achievement and their sense of worth in terms of someone relatively their own age, rather than to the comparatively overwhelming achievements of a parent.

3. The social adjustment of the trainable mentally retarded adolescent will increase with the socio economic status of his parents.

It is expected that a number of factors may influence this relationship. Among relatively lower class groups, there may be a greater tendency to express hostility, to emphasize obedience and responsiveness, and to arbitrarily define tasks and expectations, independent of the child's ability to perform them. All of these factors may negatively affect the child's self perception, and his functioning. However, the relatively higher class may overstress: achievement, independence, future-oriented activity and scholastic ability. The parents may tend to see their own success or failure in terms of their children. In the relatively higher

class there may also be: more stimulation toward maximum functioning, more acceptance of the child as an individual, a greater understanding of the situation and what might be done about it, and a greater use of community supportive services. It is expected, partially on an empirical basis, that the balance would weigh in favour of the higher class child.

4. The social adjustment of the trainable mentally retarded adolescent is directly related to the duration of attendance at Kinsmen School.

Behaviour, as well as being influenced by the needs and pressures impinging on the individual from outside, and within, is also influenced by previously learned patterns of behaviour. It is expected that a training setting, which is intended to teach more adequate patterns of functioning and social interaction, will positively affect adjustment, and the longer the exposure to such a training, the more adequate the adjustment. However it is also expected that the maximum rate of improvement will take place early in the training period, and gradually the rate of improvement will decline.

#### Definitions

Trainable Mentally Retarded Adolescent--refers to mentally retarded children between the ages of thirteen to seventeen inclusive, as of September 1st, 1966, whose I.Q. is in the range from 30 to 50 and/or, are incapable of meaningful achievement in traditional academic subjects, but who nevertheless are capable of profiting from a program of training in self care, social skills, preparation for simple jobs, or vocational skills, and who are also considered moderately retarded and will always have to be in a semi-dependent state.

For the purposes of this study, it will refer specifically to those children, within the stated age range, attending Kinsmen School, who are not otherwise classified on the school's records (i.e. epileptic, cerebral palsy).

Mental Retardation--refers to sub-average general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following aspects of adaptive behaviour: maturation, learning ability, and social adjustment.<sup>1</sup>

Social Adjustment--refers to the effectiveness with which the individual copes with the natural and social demands of his environment and involves both the degree to which he is able to function and maintain himself independently, and the degree to which he meets satisfactorily, the culturally imposed demands of personal and social responsibility.

For the purposes of this study, the Vineland Social Maturity Scale has been used for the measurement of social adjustment.

Significant Relationship--refers to an observable association between two or more variables indicating a connection between or among them.

Ordinal Family Position--refers to the sequence of children in a family with respect to their order of birth. The eldest child in the family, being the first born, will occupy the highest ordinal position.

Family--refers to a nuclear family.

Socio Economic Status--for the purposes of this study, the socio economic status will be determined by a weighted analyses of the education, income, and occupation of the parents of the trainable mentally retarded

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<sup>1</sup>Official definition of the American Association on Mental Deficiency.

adolescent.

Kinsmen School--refers to the training school located at the corner of Notre Dame Avenue and Wall Street in Winnipeg, or to other similar schools specifically for the trainable mentally retarded.

#### Assumptions

1. It is assumed that respondents will answer the schedule honestly.
2. It is assumed that since all the interviewers are second year students of social work, interviewing skills will not differ in such a way that findings will be significantly distorted.
3. It is assumed that the population of the study group in Kinsmen School falls into the level of trainable mentally retarded adolescents, as determined by the school's screening process.
4. It is assumed that the Vineland scale will be an appropriate measure of social adjustment.
5. It is agreed that there are many determinants of socio economic status but for the purpose of this study, it is assumed that education, occupation and income will be adequate indices of socio economic status.
6. In the study of any one variable it is assumed that other variables will have no significant influence that may tend to distort the findings.
7. It is assumed that the standard of education received in other day schools for trainable mental retardates will not be appreciably different from Kinsmen School and therefore can be included in calculating

the duration of attendance at schools, without invalidating the findings.

A schedule comprised, in part, of the Vineland Social Maturity Scale, and in part of a series of items selected by the members of the research project group to determine the other information necessary to this study, was used in an interview with one, or both parents of the child. The interviewers were students from the School of Social Work, engaged in their second year of studies leading to a Master's degree. The children (whose parents were to be interviewed) were selected by random techniques from among those attending Kinsmen School and whose parents were willing to participate in the study. The social quotient for each child was calculated and this was examined in relation to four variables. Tables showing the relationships and whether these are statistically significant are set out in the fourth chapter.

## CHAPTER II

### BACKGROUND OF THE STUDY

Mental retardation is the descriptive term referring to a sub-average intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behaviour.<sup>1</sup> The numerous disorders and disabilities which fall under this term, with a few exceptions (induced by modern drugs, radiation and other factors) have always been with mankind. However a number of changes in society have accentuated the problem of the mentally handicapped, both for the afflicted individuals and for society as a whole.

Before the Industrial Revolution, the economy of Western society was largely agrarian, most work was manual, and the demand for labour with a minimum of skill and comprehension was still substantial. The demands for understanding abstract concepts were limited as formal education was confined largely to the upper classes. There was a high incidence of child mortality, and those who were born particularly weak or disadvantaged frequently did not survive. Many of sound body, but limited intelligence could find their place in the economy and this left a relatively small group that suffered the stigma of idiocy.

However in the modern, industrialized, arborized society, those who are mentally subnormal are in quite a different position. Industrial-

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<sup>1</sup>Official definition by American Association of Mental Deficiency, adopted 1959.

ization and automation have alienated from the labour force those who are relatively unable to develop technical skill. The accompanying emphasis on education as the norm for all children, brings attention much earlier in life to those who do not learn at a normal rate, and who cannot comprehend abstractions involved in arithmetic or even in word symbols. Urbanism, with its greater opportunity for peer associations for normal children, makes the child, with limited capacity, a less desirable associate and a greater target for scorn, especially when his inadequacy is confirmed by a success-oriented school system. The belief in equal opportunity to succeed with the accompanying guilt and sin associated with failure<sup>2</sup> casts the retarded person into a social role which may not be related to his actual potential for relationships and independent functioning. This is supported by Dexter when he states:

Different persons having similar biological characteristics assign to themselves or are assigned different statuses and roles, and therefore acquire different behavioral patterns.<sup>3</sup>

Medical advances have made it possible for many who would have died shortly after birth, to live relatively long lives. These severely and profoundly retarded are not capable of self care, and become a heavy responsibility for a nuclear family. Public institutions care for many of these, but at considerable expense.

As the nature of the problem, and the size of the perceived problem group have changed, so have society's ways of dealing with those who

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<sup>2</sup>H. L. Wilensky and C. N. Lebeaux, Industrial Society and Social Welfare, p. 35.

<sup>3</sup>Louis A. Dexter, "Research on Problems of Mental Subnormality," American Journal of Mental Deficiency (March, 1960), p. 837.



are identified as being retarded.

Sparta disposed of the problem group. Europe of the Reformation period made them scapegoats of religious fervor and attempted to beat the devils out of them, or purge their souls in a fiery witchhunt. Even the poorhouse provisions for the feebleminded and the later more humane institutions, operated on the same underlying belief--that the retarded had a fixed endowment and were not capable of adequate functioning in any respect. This attitude which persists to some degree, even at present, was particularly well exemplified by Dr. Walter E. Fernald (1912).

The feeble-minded are a parasitic, predatory class, never capable of self-support or of managing their own affairs. The great majority ultimately become public charges in some form. They cause unutterable sorrow at home and are a menace and danger to the community.<sup>4</sup>

The beginning of a new approach appeared in the early years of the 19th century. Jean Itard and his pupil Edward Seguin dealt with retarded persons in the belief that the manifestations of their limited endowment could be considerably modified by the types of sensory and learning experiences they were exposed to.

Those who are the successors to this belief in recent years, have been pressing for special education and training schools for the retarded. They believe that such an experience will enhance the child's functioning in many areas of his life even if the retardation is moderate or quite severe. It is a parallel expectation that there will be other aspects of a child's social or physical environment which will affect his functioning. This belief is exemplified in statements such as the following.

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<sup>4</sup>Michael J. Begab, "Mental Retardation as a Social Problem," Mental Retardation and Social Work Education, ed. R. H. Katz.

The social fact of retardation places the retardate in a sequence of occasions when retardation leads to their being treated differently from their "normal" companions. . . . [The] purpose of school [is] to reverse or counteract the role status effects of having been treated as retarded.<sup>5</sup>

[The] nerve cells once damaged have little or no capability of regeneration by any known methods. The only alternative is to provide programs which will maximize the remaining developmental potential of the individuals affected.<sup>6</sup>

In order to consider the degree of handicap in absolute terms, and to measure any improvement in functioning after various experiences, a number of scales and tests have been devised. One of the earliest of these which is still widely used is the Vineland Social Maturity Scale developed in 1935. It was intended initially for normal children but

is useful in distinguishing mental retardation with or without social incompetence. It indicates relative aspects of social competence. Provides a means of evaluating the influence of environment, [and] of cultural status . . .<sup>7</sup>

There are other standardized scales such as the Fels Child Behavior Rating Scale,<sup>8</sup> the Gardiner Behavior Chart,<sup>9</sup> and the Cain-Levine Social Competency Scale,<sup>10</sup> as well as unstandardized behavior check lists.

<sup>5</sup>Dexter, Ibid., p. 836.

<sup>6</sup>L. M. Terry, "The Goal of Prevention," Proceedings--The White House Conference on Mental Retardation, 1963, p. 74.

<sup>7</sup>Jerome H. Rothstein, Mental Retardation, p. 51.

<sup>8</sup>Johnson, Capobianco & Blake, "An Evaluation of Behavioral Changes in Trainable Mentally Deficient Children," American Journal of Mental Deficiency (March, 1960), p. 881.

<sup>9</sup>M. Dayan and Joel McLean, "Gardiner Behavior Chart as a Measure of Adaptive Behavior of the Mentally Retarded," American Journal of Mental Deficiency (May, 1963), pp. 887-92.

<sup>10</sup>Samuel Levine, F. F. Elzey, F. L. Paulson, "Social Competence of School and Non-School Trainable Mentally Retarded," American Journal of Mental Deficiency (July, 1966), pp. 112-115.

These scales have been used, singly or in combination, with trainable mentally retarded children, to measure changes in adjustment.

In such a study, Johnson, Capobianco and Blake used a combination of the Vineland, Fels, and a check list, to make periodic checks over a two-year period, of the adjustment of children enrolled on a training program.<sup>11</sup> The Vineland showed an initial improvement in behaviour and then a gradual falling off, while the others showed a continuing, but progressively less significant improvement. The problem seems to be that with a test standardized for normal children and related to age, there will appear to be a falling off of competency as the child grows older, since he falls farther and farther behind the normal children. This is noted in the study mentioned above. "It is also possible that the obtained results are an artifact of the use of judgement scales for evaluating the behavior of severely [trainable] retarded children."<sup>12</sup>

In order to test the effects of certain experiences on retarded children, it would be desirable to use either a scale standardized for children with the degree of retardation being studied, or else use a control group.

One study into the effects of a training setting did use such a control group. The study was conducted at the University of Texas by Peck and Sexton.<sup>13</sup> Three groups of trainable children undifferentiated

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<sup>11</sup>Johnson, Capobianco & Blake, Ibid., pp. 881-93.

<sup>12</sup>Ibid., p. 892.

<sup>13</sup>John R. Peck and C. Lucille Sexton, "Effects of Various Settings on Trainable Children's Progress," American Journal of Mental Deficiency (July, 1961), pp. 62-68.

as to sex, race, economic circumstance, social environment, etc., attended a standardized training program at three centres: a public school, a parent-sponsored day centre, and a state institution. The control group stayed in their home setting for the two year duration of the study. A number of areas of functioning including social competence were measured. It was found that:

The over-all trend of each rating scale for the experimental groups indicated significant progress was made in each area during the two year period . . . [but] more progress was made during the first year than during the second. There was a significant difference in Social Adjustment between the trained groups and the control group [in favour of the trained groups].<sup>14</sup>

Dunn and Hottel, who also used a control group in a study conducted in Tennessee, found that "in spite of some positive trends there is an indication that the children in the special classes did not make important amounts of progress in socialization, intellectual development, self care, or parent-child relations over and above the children who remained at home."<sup>15</sup>

Other studies were conducted in which a subjective judgement was made either by a parent or a trained evaluator as to whether there was improvement in social adjustment. In a study by Schonell and Rorke<sup>16</sup> there was improved adjustment as perceived by the mothers. Tisdall found in interviews with teachers and parents of children who had been in training classes five years previously, in Illinois, that the curriculum ap-

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<sup>14</sup>Ibid., p. 67.

<sup>15</sup>Dunn and Hottel, The Effectiveness of Special Day Class Training Programs for Severely (Trainable) Mentally Retarded Children.

<sup>16</sup>Schonell and Rorke, "Effects of a Subnormal Child on the Family Unit," American Journal of Mental Deficiency (March, 1960), p. 866.

peared to have been relatively successful in meeting the goals of developing "skills in self care, in social adjustment to the family and neighbourhood and in economic usefulness in the home or in a sheltered environment."<sup>17</sup>

A number of factors other than that of having had an experience in a training institution have been studied in relation to social adjustment. Capobianco and Cole in a study of both educable and trainable children age seven and one-half to twelve and one-half years, who were attending private day school or institutional classes, found that there was "a significant difference (.01 level) in favor of female subjects over males in Total Play Behavior Scores."<sup>18</sup> This was in line with their hypothesis that there would be greater female social participation. However, there is a considerable limitation in generalizing from these findings as only a quantitative and not a qualitative measure of social interaction was made.

Francis A. Enos studied the emotional adjustment of educable, normal, and superior children. The emotional adjustment of a child was assigned a rating by a panel of psychologists following testing of the child and consultation with the teachers. It was found that "as a whole, the girls are better adjusted than the boys" however "among the boys, the slow learners are making the best overall adjustment."<sup>19</sup> The difference

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<sup>17</sup>William J. Tisdall, "A Follow-Up Study of Trainable Mentally Handicapped Children in Illinois," American Journal of Mental Deficiency (July, 1960), p. 14.

<sup>18</sup>R. J. Capobianco and Dorothy A. Cole, "Social Behavior of Mentally Retarded Children," American Journal of Mental Deficiency (January, 1960), p. 650.

<sup>19</sup>Francis A. Enos, "Emotional Adjustment of Mentally Retarded Children," American Journal of Mental Deficiency (March, 1961), p. 609.

between the adjustment of the retarded boys and girls was quite slight. This is somewhat contradictory to the statement of Farber that "in the family life-cycle the retarded boy may provide more difficult role problems than the retarded girl."<sup>20</sup>

Russell and Cassell in a study of the marginal educable retarded child in May, 1961 concluded that only the female is capable of extended family responsibility. The male may try family responsibility but rarely succeeds.<sup>21</sup> The influencing factor here may be the different role expectations that society has of males and females. The woman's role is still expected to centre largely around the home and it is quite acceptable for her to be emotionally and financially dependent. The man is expected to be independent, and capable of competing in the labour market.

It is anticipated that the socio economic status of the family will be related to the adjustment of the retarded child. There are considerable class differences in expression of feelings about their children. Kohn states that the "higher the socioeconomic status, the more prone individuals are to repress hostility toward the child and treat him or her in the accepted and conventional social manner."<sup>22</sup> There are also considerable differences in parental expectations.

The higher the socio-economic status the greater the emphasis on internalization of norms, self control and consideration of others which would seem to provide a basis for the statement that social

<sup>20</sup>Bernard Farber, Family Organization and Interaction, p. 420.

<sup>21</sup>Russell and Cassell, "Expected Educational, Occupational and Personal Development for Two Discernible Groups of Educable but Mentally Handicapped Students," American Journal of Mental Deficiency, Vol. 45, May, 1961.

<sup>22</sup>Kohn, "Social Class and Parental Values," American Journal of Sociology, Vol. 64, 1959.

adjustment is facilitated by the child who incorporates norms rather than the child who does not seem to know how to act, but only obeys.<sup>23</sup>

There are also class differences in the way in which a child is treated by the parents as determined in studies by Brofenbrenner. He found that the working class use more harsh punishment than the middle class, and this is related to their greater acceptance of releasing aggression rather than repressing it.<sup>24</sup> This may mean that a child who is less able to understand harsh discipline and open expression of hostility, and who may be unable to meet the quite rigid expectations of lower class culture may adjust less well than children in middle class families.

However it may be that lower class persons deal with adjustment problems by rejecting the child from the family unit, while middle class persons may feel a greater obligation to keep their child and do what they can for him. This tendency would seem to be indicated in the study of Capobianco and Cole who compared the socio economic class level of children in a day school class and those in an institution and determined that "the non-institutional children were found to be characteristic of a higher socio economic class according to Warner's Index of Social Class."<sup>25</sup> This selective factor may influence findings when only those children enrolled in a day school class are studied. However Kohn states that "the greater the acceptance of the child by the parents, regardless of motives, the less chance there would seem to be of a detrimental effect on his po-

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<sup>23</sup>Ibid., p. 337.

<sup>24</sup>E. E. Maccoby, Newcomb and Hartly (eds.), Society for the Psychological Study of Social Issues, New York, Holt, 1958.

<sup>25</sup>Capobianco and Cole, Ibid., p. 650.

tential social adjustment."<sup>26</sup>

There are other prominent values of the middle class such as success and achievement,<sup>27</sup> which may increase the stress on a retarded child. Parental expectations for success in education and occupation are almost certain to be frustrated to a considerable degree with a trainable child. The parents' anxiety, guilt and frustration may result in negative feelings toward a child who cannot meet the role expectations set for him.

Bernard discusses two extremes in role adjustment among the mentally deficient, and concludes that the difference in adjustment is not primarily related to I.Q. but to "something in the role network in which they find themselves."<sup>28</sup> The family represents only a small portion of the role relationships of the adult, but for the child the family is most of the role network or at least sets the role expectations with which the child moves out to meet others. The family background will have a great effect on the adequacy of expectations the child carries out into the world.

"Birth order does not determine behavior or personality characteristics, but the family constellation does provide a different environment for each individual."<sup>29</sup> This is the conclusion reached in a study by Wile and Jones. The fact of being first born or last, does not in itself determine adjustment but may place the person in a certain set of role re-

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<sup>26</sup>Kohn, Ibid., p. 338.

<sup>27</sup>F. E. Jones, Social Bases of Education, p. 28.

<sup>28</sup>Jessie Bernard, Social Problems at Midcentury, p. 232.

<sup>29</sup>Ira S. Wile and A. B. Jones, "Ordinal Position in the Behavior Disorders of Young Children," Journal of Genetic Psychology, Vol. 57, 1937, pp. 61-95.



relationships which considerably affect his behaviour. This is further enunciated in the statement, "Birth order is also a role determinant. Especially in cultures emphasizing the first born or last born position, the personality is affected by playing the role of eldest or youngest child . . ." <sup>30</sup> These statements refer primarily to normal children, yet it is reasonable that at the time of birth, parents and other concerned persons will have the same expectations of a retarded child as of a normal one. It is only as the child begins to develop and fails to meet these expectations that he is perceived as retarded. The fact that expectations and role networks vary with the ordinal position, should result in some differences in adjustment as a consequence. Rosenow has stated that "we may conclude definitely that first born children from small families present problems to child guidance clinics more frequently than do other children from such families. . . . But nothing whatever can be concluded on the basis of primogeniture alone." <sup>31</sup>

Wile and Davis in a study of the intelligence quotients in relation to ordinal position of 380 children who were taken to a clinic for personality and behaviour disorders, present a chart which includes the following information: Of fifty-seven children in the I.Q. range 24 to 75, twelve were first born, ten were second born, six were youngest, nine were in other positions, and the remaining twenty were only children. <sup>32</sup>

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<sup>30</sup>Ira S. Wile and Rose Davis, "The Relation of Birth to Behavior," Personality, ed. Kluckhohn, Murray and Schneider, p. 404.

<sup>31</sup>Kurt Rosenow, "The Incidence of First Born Among Problem Children," Journal of Genetic Psychology, Vol. 37 (1930), pp. 145-51.

<sup>32</sup>Wile and Davis, Ibid., p. 413.

It is difficult to base conclusions on this limited data, yet there would seem to be an indication that in families with two or more children, the earlier born children are more likely to have problems than are later born children.

The parents' age at the time the various children are born and their ability to cope with abnormal learning patterns may be a factor which would make the social adjustment of the first born more difficult. There are no studies available, relating to the demands of various siblings on a retarded child in different ordinal positions, but this could also conceivably affect the social adjustment.

Kennedy, a sociologist at Connecticut College who has conducted studies regarding the adjustment of the mentally retarded, has made a statement, quoted by Kurtz,<sup>33</sup> which sums up much of the research regarding attempts to improve the social adjustment of retardates, and she goes on to set a perspective for research of the future. It was her finding that a significant number of both subjects and those children that did not receive special training "have made acceptable and remarkably similar adjustments in all three areas: personal, social, and economic. The main differences are of degrees rather than kind. . . . Such a conclusion should generate further research designed to isolate the specific variables involved in the retardate's adjustment process."

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<sup>33</sup>Richard A. Kurtz, "Implications of Recent Sociological Research in Mental Retardation," American Journal of Mental Deficiency, Vol. 69, (1964), p. 17.

## CHAPTER III

### METHODS

As the intent of this study is to consider the social adjustment of trainable mentally retarded adolescents, in relation to a number of variables, it was necessary to "locate" the general population of trainable mentally retarded children, within the Metropolitan Winnipeg area, from which a sample population could be selected. It was decided that since the Kinsmen School, on Notre Dame Avenue, was open to all retarded children within the desired intelligence quotient, and chronological age ranges, and that since financial costs and transportation problems incidental to a child's attendance at this school were, as far as possible, minimized as deterrents to attendance, that the nominal roll of children registered at the school would be sufficiently representative of the total population of trainable retarded adolescents. In fact it was believed that a majority of the total population would be in attendance at the school. The possible exceptions to this would be those children at either extreme of the range of psychological functioning, who would either have required institutionalization, or have managed to continue in slow learner classes in the public school system.

The school authorities were contacted by the School of Social Work, who requested that they provide a nominal roll for purposes of the study. The school authorities in turn discussed this with a group of parents, and it was decided that the fullest co-operation would be extended,

with the exception of providing direct access to the individual children's records kept by the school.

At this time, those conducting the study visited the Kinsmen School to acquaint themselves with the staff and the setting where the study population spend such a considerable portion of their lives. At this time also, considerable reading of related studies and relevant theoretical information was carried out. The relevant literature is in part reported in Chapter II.

Simultaneous studies were being conducted by other research groups from the School of Social Work, using other age groups of children attending Kinsmen School. A letter was therefore sent to the parents of each child on the nominal roll asking that they advise the School of Social Work if they were unable or did not wish to participate in the studies.

After deletion of those who declined to participate, the children in the desired age range of thirteen to seventeen inclusive as of September 1st, 1966, were selected. Children who were noted on the school list as having cerebral palsy, significant physical disabilities, who were only there for work assessment, or who were known to have a retarded sibling, were deleted from the list. These deletions were made as the presence of any of these factors, each of which could have significant bearing upon the social adjustment of the individual under consideration, would introduce technically irrelevant elements into a study concerned exclusively with the influence of the four variables stipulated in the sub-hypotheses.

The remaining population was seventy-seven trainable retarded adolescents from which the study sample would be drawn. The decision to limit the sample to forty subjects was reached after consideration of the

following reality factors: the time schedule to be met in carrying out the successive phases of the total research procedure; the estimated hour requirement for the administration of each unit of investigation; the number of members making up the research team; the desirability of ensuring that each researcher should have the opportunity and responsibility for conducting at least three units of field investigation; and the importance of ensuring at least the minimum number of subjects required to permit some modest statistical treatment of the findings. This combination of considerations led to the determination of forty subjects as the practically acceptable sample size.

For the purpose of gathering the necessary information, at least one parent, frequently accompanied by one or more other family members, was interviewed at home in a face to face interview. Two instruments of investigation were used: the Vineland Social Maturity Scale, and a schedule, developed by the research group to obtain information relating to the four variables. Copies of these can be found in Appendix A.

The Vineland Social Maturity Scale is a standardized instrument made up of a series of questions regarding a person's ability to perform certain tasks or social activities. These tasks are arranged in ascending order of difficulty. By relating a person's usual level of performance to the age for which that level is the norm, and comparing this to the person's chronological age, it is possible to calculate a value or score known as the "social quotient."

The schedule was composed of questions relating to sex, ordinal position, length of training, and the education, occupation, and income of the parents. For ordinal position, all older siblings whether in the home

or not, with the exception of those deceased in infancy, were taken into consideration.

For length of training, attendance at other schools specifically for the trainable mentally retarded, was taken into consideration in addition to the attendance at the Winnipeg Kinsmen School. Each school year attended was counted as one full year, and part years were added to this in proportions of a full school year.

For the purposes of establishing a measurement of socio economic class, the level of education of both parents, the total family income, and the occupation of the family head were evaluated on a point system, which is part of the schedule in Appendix A. The parents were asked to identify the highest level of formal education or training achieved or attempted. The points for all completed levels below this and appropriate points if the final level was not complete, were totaled. The person being interviewed was asked to identify which of four categories, the family income fell within, and was asked to name or describe the occupational position of the family head. The answer to the latter was then categorized in relation to how the position is usually described, with particular consideration to the following questions: whether the person was unemployed and not still in receipt of unemployment insurance; whether he was a labourer without a certificate of trades training; whether he was employed in an office; or was a member of an occupational group having a professional association.

It will be noted on examination of part B of the schedule, that education is weighted more heavily than income or occupation of family head. The maximum points possible in the "education" category are five,

in comparison to occupation and income where the maximum for each is four points. This differential was built in as it was believed that otherwise families with both parents working or with the father self-employed and making good money, would have a disproportionate advantage over much better educated individuals who by reason of their calling were employed in relatively low-paying positions.

By totaling the various points attributed, it was possible to assign families a "score" varying from zero to thirteen, which would give a fairly accurate relative indication of their socio economic class.

To pretest the schedule, and to standardize, as much as possible, interviewing procedures, a simple random sample of thirteen names was chosen. Of these thirteen, the first seven that could be contacted and were willing to be visited were interviewed jointly by two members of the research group, each of the two researchers scoring individually the answers to both the scale and schedule. The results of the scoring were then compared and problems in interpretation and use of the tools were discussed with the whole group.

Following this, the schedule was slightly modified, but as all the necessary information was included in the pretest, it was decided that the data gathered in respect to these seven subjects would be retained and utilized in the study proper.

An additional sample of thirty-three was then drawn in random fashion, making no attempt to assure an equal distribution between male and female, or a stratified distribution in relation to age. These families were contacted by telephone to arrange interviews, and as there were some at this time, who either could not be contacted, or declined to par-

ticipate, it was necessary to continue to draw in random fashion from the available population until an effective sample of forty was obtained.

Once the interviews had been completed, the data was entered on a master tally-sheet. Arrays of each of the variables in relation to the social quotient were arranged and by various formulations of class intervals and cross-classifications, apparent relationships were established. Those combinations of data which have a bearing on the various hypotheses are presented in Chapter IV primarily in the form of tables, but where relevent, histograms are used to more clearly show comparisons.



## CHAPTER IV

### PRESENTATION OF THE FINDINGS

It is the intent in this chapter, to present and discuss the data obtained from administering the Vineland Social Maturity Scale and the schedule discussed in Chapter III, to the sample of forty trainable mentally retarded adolescents. This data will be so presented that the differences in: sex, ordinal family position, socio economic position, and length of training can be compared in relation to social quotient. The differences in age will also be considered as this may influence the conclusions which may be drawn from some of the data. The frequency of values within a class interval, and the measures of central tendency (median and mean) will be used in analyzing the data. Because of the relatively small size of the sample, it was felt that the mode would not be an appropriate measure.

The sample of forty trainable mentally retarded adolescents was composed of eighteen girls and twenty-two boys. In beginning analysis of the sex variable, it seemed desirable to establish whether males and females were distributed evenly across the age span of thirteen to seventeen years, and whether there were any trends in the relationship of social quotient by age. This data is presented in Table 1.

It should be noted that both the males and females in the thirteen year old age interval had somewhat higher mean social quotients than those in any other interval. However the frequency in this interval was only

two for each of males and females and there does not seem to be a general trend of ascending or descending social quotients in relation to age.

TABLE 1  
THE MEAN SOCIAL QUOTIENT OF FORTY TRAINABLE MENTALLY  
RETARDED ADOLESCENTS BY AGE AND SEX

Age	Male		Female		Total	
	Frequency	Mean S.Q.	Frequency	Mean S.Q.	Frequency	Mean S.Q.
13	2	61.7	2	60.5	4	61.1
14	8	55.3	2	45.4	10	53.0
15	7	57.3	3	53.4	9	56.1
16	2	49.5	6	50.8	9	50.5
17	3	56.8	5	56.3	8	56.6
Total	22	56.2	18	53.2	40	54.8

It should also be noted, that the mean social quotient of males, with the exception of the sixteen year old age interval, is higher than the mean social quotient of the females. This can be seen more clearly in Figure I.

The mean age of the males (14.8 years) is somewhat lower than the mean age of the females (15.5) but this does not seem to be a factor in influencing the higher average social quotient for the males.

It had been hypothesized that the earlier a subject's birth position among his siblings, the lower would be his social quotient. Table 2 shows the mean social quotient for males and females individually and com-

bined, in each of the first three, and "other" ordinal positions.

FIGURE I

MEAN AND MEDIAN SOCIAL QUOTIENT OF TRAINABLE  
MENTALLY RETARDED ADOLESCENTS BY SEX

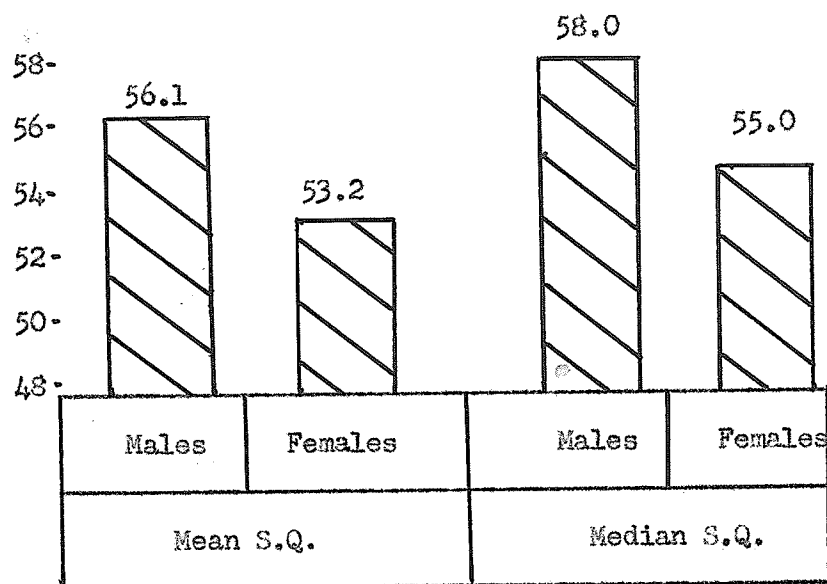


TABLE 2

THE MEAN SOCIAL QUOTIENT OF FORTY TRAINABLE MENTALLY RETARDED  
ADOLESCENTS BY SEX AND ORDINAL POSITION

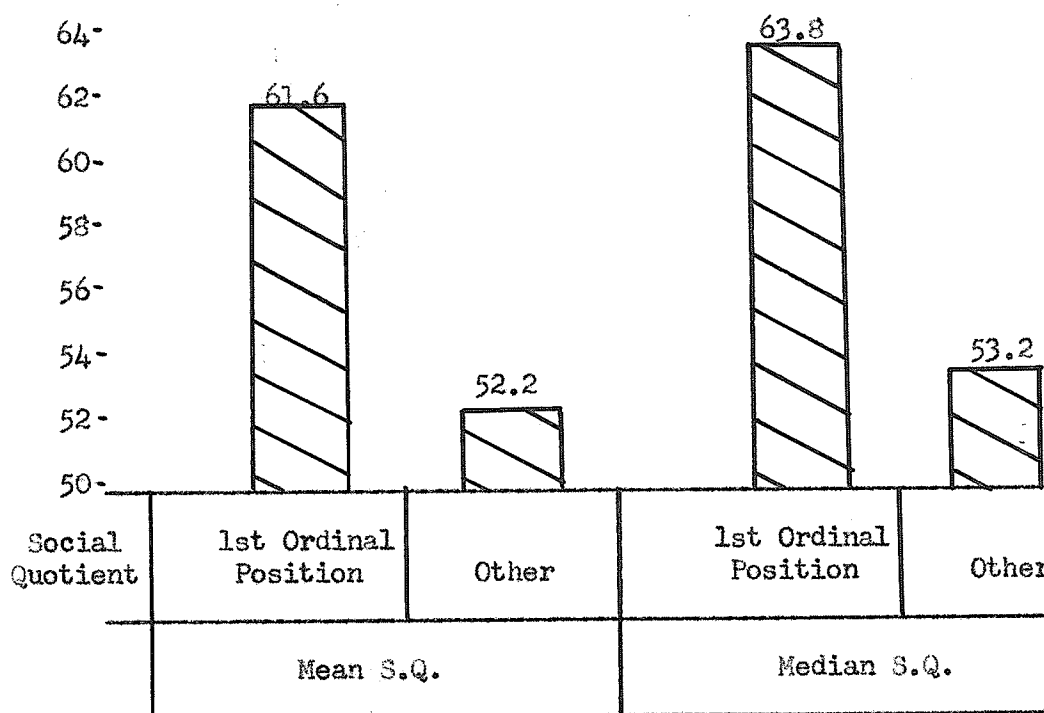
Ordinal Position	Male		Female		Total	
	Frequency	Mean S.Q.	Frequency	Mean S.Q.	Frequency	Mean S.Q.
1st	8	60.9	3	63.4	11	61.6
2nd	7	50.7	5	50.3	12	50.5
3rd	4	57.2	5	47.3	9	51.7
Other	3	54.6	5	55.9	8	55.3

It can be seen in this table that the social quotient of those

children in first ordinal position is somewhat higher than for other ordinal positions, but that despite several fluctuations there does not seem to be any trend in successive ordinal positions. If the mean and median social quotient of the first ordinal position is compared with all other ordinal positions, it can be seen that the first position has a considerably higher social quotient. This is illustrated clearly in Figure II.

FIGURE II

MEAN AND MEDIAN SOCIAL QUOTIENTS OF FORTY TRAINABLE MENTALLY  
RETARDED ADOLESCENTS BY ORDINAL POSITION



It should be noted that the factors of age difference between the subject and other siblings, and of family size, were not directly considered. It was known that two of the subjects were only children, but their social quotients did not tend to vary significantly from the average social quo-

tient of the first ordinal position.

It was hypothesized that the higher the socio-economic position of the family, the higher would be the social adjustment. The socio economic position was calculated on the thirteen point scale as described in Chapter III, and it was found that the subjects were distributed from 5 to 13 with fifty per cent of the values falling between 5.0 and 8.0 inclusive on the scale. In Table 3, this scale is divided into three intervals which will be referred to as lower, middle, and higher.

TABLE 3  
MEAN AND MEDIAN SOCIAL QUOTIENTS OF FORTY TRAINABLE MENTALLY  
RETARDED ADOLESCENTS BY SOCIO ECONOMIC POSITION AND SEX

Socio Economic Position	Males			Females			Total		
	Fre- quency	Mean S.Q.	Median S.Q.	Fre- quency	Mean S.Q.	Median S.Q.	Fre- quency	Mean S.Q.	Median S.Q.
Lower 0 - 4.9	4	54.0	45	7	53.3	55.1	11	53.5	52.5
Middle 5 - 8.9	14	56.0	55	7	50.4	51.6	21	54.2	51.7
Higher 9 - 13	4	58.7	58.2	4	58.0	55	8	58.3	57.0

From this table it can be seen that especially the males tend to have a higher social quotient as the socio economic class increases. This trend is not as marked with the females but is still apparent in the mean social quotients.

It was expected that the social adjustment would increase with

length of training. The subjects had attended the school for a length of time varying from one year to eleven and a half years. Table 4 presents the mean and median social quotients of children attending school for different lengths of time.

TABLE 4  
MEAN AND MEDIAN SOCIAL QUOTIENTS OF FORTY TRAINABLE MENTALLY  
RETARDED ADOLESCENTS BY LENGTH OF TRAINING AND SEX

Length of Training	Males			Females			Total		
	Fre- quency	Mean S.Q.	Median S.Q.	Fre- quency	Mean S.Q.	Median S.Q.	Fre- quency	Mean S.Q.	Median S.Q.
1 - 4.8 yrs.	8	65.5	61.8	5	50.3	50.0	13	59.7	59.9
4.9 - 8.7 yrs.	11	50.2	50.0	8	54.8	57.5	19	52.1	58.8
8.8 - 11.5 yrs.	3	53.2	52.5	5	53.5	52.5	8	53.4	52.5

It is quite apparent that the social quotient seems to be negatively related to the length of training. It should be noted however that most of those children who had been at Kinsmen School a relatively short time, had previously been attending upgraded classes in the public school system, and their being able to remain in such classes would indicate a relatively high level of social and intellectual functioning. This factor, which is known to have been operating in at least eleven cases, is sufficiently significant to override other influences.

The findings presented in this chapter will be further discussed and interpreted in the final chapter.

## CHAPTER V

### CONCLUSIONS

In Chapter I of this report it was hypothesized that there would be significant relationships between the social adjustment of trainable mentally retarded adolescents and each of four variables. A schedule and a standardized scale were used to obtain data pertaining to these variables from a random sample of forty trainable mentally retarded adolescents attending Kinsmen School. This data was organized and inspected for apparent relationships and relevant combinations were presented in Chapter IV.

It is the intent in this chapter to consider what conclusions regarding the various hypotheses might be drawn from this data. Consideration will be given to any factors which might limit the application of these findings, or call their reliability into question. The implications of the findings for further research will be briefly considered.

The first sub-hypothesis was that female trainable mentally retarded adolescents will display better social adjustment than will male trainable mentally retarded adolescents.

This hypothesis does not seem, by inspection of the data, to be supported. Quite the contrary would appear to be true especially in the fourteen and fifteen year old age range as shown in Table 1. However the extremely limited frequency for the females in these age categories makes the data insufficient to draw conclusions. When the mean social quotients for males and for females in all age categories are compared, there seems

to be a trend toward males being better adjusted. However this is not at a level of statistical significance.

It might be questioned whether a male adolescent whose social functioning is at the lower extremes of the trainable level would tend to be withdrawn from the school more readily than a female. If this were true it would suggest that those males remaining at Kinsmen School are likely to be better socially adjusted than the general population of male trainable mentally retarded adolescents. No direct data is available to indicate whether this factor does operate but it is known that less than twenty-two per cent of the males but more than sixty-one per cent of the females fall into the sixteen and seventeen year old age range. This is also shown by the fact that the mean age of males is .7 years lower than for females. However despite this skewing of the sample, it is not in these age categories but in the lower age ranges where the greatest difference in social quotient occurs. It should also be noted that there are no consistently observable trends of ascending or descending social quotient in relation to age. Variations in age therefore do not seem to affect the reliability of the data regarding the sex variable.

The size of the sample is too limited to support conclusive statements, but it must be stated that a trend does exist which is contrary to what was expected in the hypothesis. As previous studies were largely concerned with younger children, it might be questioned whether the particular stresses and expectations of adolescence may introduce factors which could enhance the male's adjustment over the female's. This aspect particularly, and the whole question of male and female roles in our society as they affect retarded children should be the subject of further research.



The second sub-hypothesis was that the higher the ordinal family position of the trainable mentally retarded adolescent, the lower is his social adjustment.

The data presented in Table 2 does not support this hypothesis. The first ordinal position appears to be significantly correlated with more adequate social functioning. However the relatively limited frequency of eleven subjects in the first ordinal position prevents drawing firm conclusions. The fact that age difference between the subject and other siblings, and the family size were not controlled somewhat limits the findings. These are factors which should be taken into consideration in further research. Grouping ordinal positions from second to tenth together and comparing them to the first ordinal position overlooks the uniqueness of each of these positions. No consideration was given to whether the subject was youngest in the family. This potentially important factor should be considered in further research.

There do not appear to be any factors other than the limited sample size which would make the sample nonrepresentative of the general population of trainable mentally retarded adolescents with respect to this variable of ordinal position. However because of the number of factors which were not adequately considered there is not sufficient evidence for concluding that trainable mentally retarded adolescents who are first born are likely to be better adjusted than those who are in other ordinal positions.

If this is, however, substantiated by further research, other studies might be conducted to determine if adjustment of the first born over other children is related to the amount of parental attention and encouragement a first born child receives. Also as the Vineland Social Mat-

urity Scale primarily measures the ability to perform certain types of tasks and activities, there may be somewhat different results if ability to relate to others maturely, or personal sense of identity were the factors measured.

The third sub-hypothesis was that the social adjustment of the trainable mentally retarded adolescent will increase with the socio economic status of his parents. The data in Table 3 tends to support this sub-hypothesis as those subjects in the relatively higher socio economic status generally have a somewhat better social adjustment than those in the lowest status. However the largest portion of the sample fell into the middle socio economic status when three class intervals are used, and although there is a consistent positive correlation among the males between Social Quotient and socio economic class this is less true for the females. It must be kept in mind that the tool developed to measure socio economic status took into consideration only the factors of income, occupation and education, and although these are considered important they are not the only factors which may affect socio economic status. Religion, ethnic background, group membership, residential location, and age of the parents are all important factors. In future research, a more comprehensive or standardized instrument for measuring socio economic status would be desirable.

Considering the limited sample size, the fact that the largest differences were in the extremes where the frequency was limited, and the limitations of the measurement instruments, any attempt to draw conclusions from the slight trend is rather tenuous. However the trend does exist, and if it is substantiated by further research then exploration is required in-

to the more specific factors which may influence adjustment. Among these might be differences in child-rearing practices, differential access to therapeutic resources, different family sizes in different classes, and different expectations of the role a retarded child can perform.

The fourth sub-hypothesis was that the social adjustment of trainable mentally retarded adolescents is directly related to the duration of attendance at Kinsmen School.

It would appear from the data in Table 4 that this sub-hypothesis was refuted. However, as many of the subjects, with relatively short duration of attendance, had earlier attended public school classes, their level of intellectual and probably their level of social functioning would generally tend to be higher. This extraneous factor is so important, that no conclusions bearing on the sub-hypothesis can be drawn.

Before considering the implications of the data for the main hypothesis, several factors which affect the reliability of the results should be noted. The size of the total sample was rather limited and the frequency in certain sub-categories was too small to support any conclusions. The level of skill in obtaining the raw data, and the relatively large number of interviewers may have limited the reliability. It would have been desirable if an Intelligence Quotient for each subject had been available as a valid consideration of the other variables depends on having differences in the range and distribution of intelligence minimized between the categories to be compared.

The main hypothesis of this study was that there is a significant relationship between the social adjustment of forty trainable mentally retarded adolescents enrolled in the Kinsmen School and their sex, ordinal

family position, socio economic status, and duration of attendance at Kinsmen School.

For the most part, this was not substantiated. There were trends suggesting possible relationships but these require further research. In the case of ordinal family position, the observable relationship was significant, but even here limitations of the sample size precludes a firm conclusion.

There is a definite need for further study concerning the social adjustment of trainable mentally retarded children. A more detailed consideration of the variables, using a larger sample group, is indicated. Factors relating to family size, ordinal family position, age differences between the retarded child and other siblings, sex, therapeutic opportunity, child-rearing practices, parental expectations and many others are especially important to social work. These factors influence, prescribe and limit the roles which the individual assumes. An increased understanding of factors which may enhance or retard social functioning will pave the way to more appropriate intervention by social work and other disciplines in ameliorating the problems of the retarded child in our society.

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APPENDIX A

Schedule

Part A:

1. Sex of child \_\_\_\_\_
2. Length of time child has attended Kinsmen School \_\_\_\_\_ yrs. \_\_\_\_\_ months.
3. Number of children in the family older than the retarded child. - \_\_\_\_\_
4. Number of children in the family younger than the retarded child. - \_\_\_\_\_
5. Therefore the ordinal position of the retarded child is - \_\_\_\_\_
6. Occupation of the family head: Specify: - Family Head \_\_\_\_\_

- Professional .....( )
- White Collar .....( )
- Blue Collar .....( )
- Unskilled .....( )
- Unemployed .....( )
- Welfare Recipient .....( )
  
- Managerial .....( )

Specify Occupation: \_\_\_\_\_

If family head is unemployed is he in receipt of UIB's: \_\_\_\_\_

7. <u>Education:</u>	<u>Complete</u>		<u>Incomplete</u>	
	Mother	Father	Mother	Father
Elementary (1-6) .....	( )	( )	( )	( )
Junior High (7-9) .....	( )	( )	( )	( )
High School (10-11) .....	( )	( )	( )	( )
Trades Training .....	( )	( )	( )	( )
University (12 plus) .....	( )	( )	( )	( )
Post Graduate training .....	( )	( )	( )	( )

8. Total Family Income (Gross):

- A. less than \$3,500 \_\_\_\_\_
- B. \$3,500 - \$5,999 \_\_\_\_\_
- C. \$6,000 - \$9,999 \_\_\_\_\_
- D. \$10,000 plus \_\_\_\_\_

ANALYSIS AND WEIGHT ASSIGNMENT RE SOCIO-ECONOMIC CLASS.Total Maximum Possible Points: - 13Re: Occupation of family head: Maximum possible - 4 pointsRe: Education - average mother's  
and father's education  $\frac{10}{2}$  = Maximum possible - 5 pointsRe: Total Family Income: Maximum possible - 4 pointsOccupation of family head:

- Professional (3)
- White collar (2)
- Blue collar (1)
- Unskilled (.5)
- Unemployed (0)
- Welfare recipient (-1)
- Managerial (extra) (1)

If in receipt of UIB's weight in regular employment.

Education:

	<u>Complete</u>	<u>Incomplete</u>
Elementary (1-6)	(1)	(.5)
Junior High (7-9)	(1)	(.5)
High School (10-11)	(1)	(.5)
Trades Training	(1)	(.5)



<u>Education (continued):</u>	<u>Complete</u>	<u>Incomplete</u>
University (12 plus)	(1.5)	(%)
Post Graduate Training	(.5)	(0)
<u>Total Family Income</u>	(Gross)	
A. Less than \$3,500 -	(1)	
B. \$3,500 - \$5,999 -	(2)	
C. \$6,000 - \$9,999 -	(3)	
D. \$10,000 plus -	(4)	



By  
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*Wendell Smith*  
*Wendell Smith*

NAME..... Sex..... Grade..... Date.....  
Last First Year Month Day

Residence..... School..... Born.....  
Year Month Day

M.A..... I.Q..... Test Used..... When..... Age.....  
Years Months Days

Occupation..... Class..... Years Exp..... Schooling.....

Father's Occupation..... Class..... Years Exp..... Schooling.....

Mother's Occupation..... Class..... Years Exp..... Schooling.....

Informant..... Relationship..... Recorder.....

Informant's est..... Basal Score\*.....

Handicaps..... Additional pts.....

REMARKS: Total score.....

Age equivalent.....

Social quotient.....

Age Periods  
 0 - 1

Category†	Score*	Items	LA Mean
C		1. "Crows"; laughs .....	.25
SHG		2. Balances head .....	.25
SHG		3. Grasps objects within reach .....	.30
S		4. Reaches for familiar persons .....	.30
SHG		5. Rolls over .....	.30
SHG		6. Reaches for nearby objects .....	.35
O		7. Occupies self unattended .....	.43
SHG		8. Sits unsupported .....	.45
SHG		9. Pulls self upright .....	.55
C		10. "Talks"; imitates sounds .....	.55
SHE		11. Drinks from cup or glass assisted .....	.55
L		12. Moves about on floor .....	.63
SHG		13. Grasps with thumb and finger .....	.65
S		14. Demands personal attention .....	.70
SHG		15. Stands alone .....	.85
SHE		16. Does not drool .....	.90
C		17. Follows simple instructions .....	.93

† Key to categorical arrangement of items:  
 SHG — Self-help general      C — Communication      L — Locomotion  
 SHD — Self-help dressing      SD — Self-direction      O — Occupation  
 SHE — Self-help eating      S — Socialization

\* For method of scoring see "The Measurement of Social Competence."

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I - II

L	18. Walks about room unattended	1.03
O	19. Marks with pencil or crayon	1.10
SHE	20. Masticates food	1.10
SHD	21. Pulls off socks	1.13
O	22. Transfers objects	1.20
SHG	23. Overcomes simple obstacles	1.30
O	24. Fetches or carries familiar objects	1.38
SHE	25. Drinks from cup or glass unassisted	1.40
SHG	26. Gives up baby carriage	1.43
S	27. Plays with other children	1.50
SHE	28. Eats with spoon	1.53
L	29. Goes about house or yard	1.63
SHE	30. Discriminates edible substances	1.65
C	31. Uses names of familiar objects	1.70
L	32. Walks upstairs unassisted	1.75
SHE	33. Unwraps candy	1.85
C	34. Talks in short sentences	1.95

II - III

SHG	35. Asks to go to toilet	1.98
O	36. Initiates own play activities	2.03
SHD	37. Removes coat or dress	2.05
SHE	38. Eats with fork	2.35
SHE	39. Gets drink unassisted	2.43
SHD	40. Dries own hands	2.60
SHG	41. Avoids simple hazards	2.85
SHD	42. Puts on coat or dress unassisted	2.85
O	43. Cuts with scissors	2.88
C	44. Relates experiences	3.15

III - IV

L	45. Walks downstairs one step per tread	3.23
S	46. Plays cooperatively at kindergarten level	3.28
SHD	47. Buttons coat or dress	3.35
O	48. Helps at little household tasks	3.55
S	49. "Performs" for others	3.75
SHD	50. Washes hands unaided	3.83

IV - V

SHG	51. Cares for self at toilet	3.83
SHD	52. Washes face unassisted	4.65
L	53. Goes about neighborhood unattended	4.70
SHD	54. Dresses self except tying	4.80
O	55. Uses pencil or crayon for drawing	5.13
S	56. Plays competitive exercise games	5.13

XV - XVIII

C .....	90. Communicates by letter .....	14.95
C .....	91. Follows current events .....	15.35
L .....	92. Goes to nearby places alone .....	15.85
SD .....	93. Goes out unsupervised daytime .....	16.13
SD .....	94. Has own spending money .....	16.53
SD .....	95. Buys all own clothing .....	17.37

XVIII - XX

L .....	96. Goes to distant points alone .....	18.05
SD .....	97. Looks after own health .....	18.48
O .....	98. Has a job or continues schooling .....	18.53
SD .....	99. Goes out nights unrestricted .....	18.70
SD .....	100. Controls own major expenditures .....	19.68
SD .....	101. Assumes personal responsibility .....	20.53

XX - XXV

SD .....	102. Uses money providently .....	21.5+
S .....	103. Assumes responsibility beyond own needs .....	21.5+
S .....	104. Contributes to social welfare .....	25+
SD .....	105. Provides for future .....	25+

XXV+

O .....	106. Performs skilled work .....	25+
O .....	107. Engages in beneficial recreation .....	25+
O .....	108. Systematizes own work .....	25+
S .....	109. Inspires confidence .....	25+
S .....	110. Promotes civic progress .....	25+
O .....	111. Supervises occupational pursuits .....	25+
SD .....	112. Purchases for others .....	25+
O .....	113. Directs or manages affairs of others .....	25+
O .....	114. Performs expert or professional work .....	25+
S .....	115. Shares community responsibility .....	25+
O .....	116. Creates own opportunities .....	25+
S .....	117. Advances general welfare .....	25+

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## APPENDIX B

## Master Data Sheet

Age	Age Equivalent	Social Quotient	Ordinal Family Position	Sex	Socio Economic Status	Duration of Attendance in Years
15.5	9.03	58.2	2	M	9.0	1.4
14.6	7.28	49.2	2	F	5.3	6.5
14.2	11.20	78.9	3	M	1.5	1.5
14.6	7.28	49.2	2	M	6.5	8.5
17.8	9.63	54.1	2	M	6.5	5.5
17.8	9.63	54.1	1	M	6.5	10.5
14.0	8.84	63.1	3	M	5.0	7.5
14.2	8.45	59.5	2	M	6.0	9.5
17.1	5.83	34.1	3	F	8.5	2.5
13.4	8.28	61.8	1	F	5.8	7.5
14.3	9.03	63.1	1	M	5.0	2.5
16.8	9.43	56.1	1	F	4.8	5.5
16.4	10.9	66.5	2	F	13.0	11.5
16.8	10.3	61.3	4	F	5.0	10.5
14.8	3.79	25.6	2	M	8.0	7.5
13.5	6.09	45.1	2	M	7.0	7.5
17.0	12.30	72.4	1	F	10.0	5.5
15.8	7.28	46.1	3	M	10.0	9.5
15.1	6.15	40.7	3	F	4.5	8.5

## Master Data Sheet (continued)

Age	Age Equivalent	Social Quotient	Ordinal Family Position	Sex	Socio Economic Status	Duration of Attendance in Years
13.6	8.05	59.2	3	F	5.0	6.0
16.8	9.03	53.7	5	F	0.5	1.5
13.9	10.90	78.4	1	M	8.0	1.5
15.5	9.63	62.1	1	M	8.0	1.5
16.3	6.03	37.0	1	M	4.0	8.5
17.1	9.03	52.8	3	F	9.0	10.5
15.0	6.15	41.0	3	M	7.0	8.5
14.8	5.63	38.0	10	M	1.8	7.5
16.8	6.15	36.6	2	F	7.0	9.5
17.7	8.85	50.0	3	F	7.5	10.5
15.5	9.43	60.8	8	F	3.5	3.2
15.1	9.63	63.1	2	M	5.3	8.5
15.6	11.20	71.8	1	M	10.5	5.5
17.9	13.00	72.6	6	F	1.8	1.5
14.7	9.38	63.8	5	M	5.5	6.5
16.6	10.30	62.0	7	M	3.5	3.0
15.1	8.85	58.6	2	F	3.3	8.5
14.7	5.83	39.7	2	F	12.5	5.0
16.8	5.13	30.5	4	F	2.5	1.5
17.5	10.90	62.3	1	M	6.0	4.5
15.4	9.03	58.6	1	M	9.8	3.5