A STUDY OF STUDENT ADJUSTMENT AT VARYING
GRADE LEVELS IN HIGH SCHOOL

A Thesis
Submitted to the Committee on Graduate Studies
In Partial Fulfilment of the Requirements
for the
Degree of Master of Arts,
in the
Department of Education,
University of British Columbia.

by
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Regina, Saskatchewan.

April 16, 1948.
A STUDY OF STUDENT ADJUSTMENT AT VARYING
GRADE LEVELS IN HIGH SCHOOL

Since educators today consider the development of the personality of students to be an important function of the school, the writer attempted to measure the growth of personality during the high-school period. From an analysis of the results, it was hoped to discover how the students' psychological needs varied as they went through high school, and what the implications were for a guidance program.

The California Test of Personality was administered to 720 students in Kitsilano High School, Vancouver, B.C. These students are believed to be representative of the academic ability and socio-economic background of the students in the Vancouver high schools. One hundred and seventy-two boys and 155 girls were tested in grade eight, 126 boys and 125 girls in grade ten, and 74 boys and 68 girls in grade twelve.

In general, there was no difference between the mean scores of boys and girls within each grade. Only five of 39 differences were three times as large as their respective standard errors.

The personality development of the boys from Grade VIII through Grade XII was compared with the growth shown by the girls in the same period. Differences between mean scores of the two sexes for the various components of the test led to the following observations:

(1) For both sexes, higher means were found in the later grades in total and self-adjustment, and
in self-reliance, personal worth, feeling of belonging, anti-social tendencies and school relations;

(2) There was little change in social-adjustment, social skills, and family and community relations;

(3) Irregular development was found in personal freedom, withdrawing tendencies and social standards;

(4) Scores of the girls tended to increase and those of the boys to remain stationary in nervous symptoms;

(5) The only significant negative difference between the mean scores of boys in grades twelve and ten was in withdrawing tendencies.

In general, grade-level differences in mean scores indicated that students in grade eight were not as well adjusted as those in grade ten, and students in grade ten ranked lower than those in grade twelve in most components of the California Test of Personality. The mean differences between grades eight and ten tended to be fairly large, while the changes in means from grades ten to twelve were found to be smaller and more erratic.

From the test data, the components of personality which called for particular attention appeared to be:

(1) Nervous symptoms, self reliance, social skills and freedom from anti-social tendencies in grade VIII;
(2) Social skills and family and community relations as well as total social-adjustment in the upper grades;

(3) Personal worth, feeling of belonging and social standards for grade-ten boys; Sense of personal freedom and withdrawing tendencies for grade-twelve boys;

(4) Freedom from nervous symptoms in the upper grades;

(5) Personal freedom for grade-twelve girls.

In addition to the general areas outlined above, certain students with very low test scores would, if the test results were valid, require expert guidance and help to correct their maladjustments.

The evidence points to the need for a guidance program especially designed to enable pupils to improve from year to year in the traits in which their scores suggest unsatisfactory adjustment.
ACKNOWLEDGEMENTS

This investigation would have been impossible without the wholehearted cooperation and help of the Principal and staff of the Kitsilano Junior and Senior High Schools, Vancouver, B. C. where the tests and questionnaires were administered. Special indebtedness is due to Mr. J. Gordon, Principal, and to the counsellors, Miss J. E. Casselman and Mr. B. E. Wales for their interest, cooperation and effort.

Finally, the writer offers his thanks to his wife who painstakingly checked the statistical and bibliographical sections of the thesis.

L. J. G.
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CHAPTER I
INTRODUCTION

The adequacy of any school's program is determined by the extent to which it meets the individual needs of its students. In the past, these needs were considered to be chiefly the acquisition of knowledge and skills, and little emphasis was placed on the development of a well-rounded personality. However, in the minds of modern educators, the development of personality is considered to be an important function of the school program. This difference in emphasis is pointed out by Koos (126, p. 2): "Whereas, it is often asserted, the overwhelming emphasis in purpose and practice at the turn of the century was on preparation for college for selected pupils, purposes are now dominately cast in terms of aspects of life and living, such as citizenship, health, recreation, and vocation."

Other authors list similar objectives of education for today. Worth (255, p. 53) conceives the aims of education to be the "development and training of the individual for effective living in his social environment." Stated in another way, these objectives are: self realization, effective and wholesome human relationships, economic efficiency and civic responsibility (160a).

1. See reference numbers 54, 75, 141, 225, 255.
The Department of Supervisors and Directors of Instruction of the National Education Association, writing as late as 1940 (159, p. 5), are not convinced that any great change in emphasis in the educational program has yet occurred. "When we are convinced of the supreme importance of the personality, we will begin to recognize the present one-sided bias of education towards intellectual development and training in skills to the neglect of the emotional and personality development upon which our future life depends."

It would appear, however, that the directors who plan the educational programs in Canada are becoming aware of the need to change the emphasis to the development of the "whole child." An increasing number of the provinces of Canada now include a guidance program in the course of studies to meet the personality needs of the students.

The writer, therefore, considers an investigation in the field of personality to be of primary importance. In this field, the writer chooses to investigate the personality development of pupils during the high school period. From an analysis of this investigation, it is hoped to discover in what ways the students' needs vary as they go through high school, and what the implications are for a guidance program.
The purpose of this study is to compare student adjustment, as measured by the California Test of Personality, in grades eight, ten and twelve. The results of the analysis of the tests will constitute the basis for a discussion of the implications for a guidance program.
CHAPTER II
REVIEW OF LITERATURE

Literature dealing with a comparison of student personality adjustment at varying grade levels is meagre. Specifically, not a single study comparing personality adjustments of junior and senior high-school pupils was found in the literature. This chapter will, therefore, confine itself to the experimental evidence which formed the background for the formulation of this problem.

The chapter will be divided into three main sections. The first will deal with the reliability and validity of personality questionnaires. The second section, describing patterns of behaviour indicative of maladjustment, will outline, first, the readings on the ability of teachers to recognize these patterns; next, normal behaviour patterns; and finally, the patterns of maladjustment. The third section will deal with the various causes of maladjustment and will include a description of the methods and difficulties of diagnosis. The causes of inadequate patterns of behaviour will be divided into physical, intellectual and psychological. For convenience, the psychological ones are classified as closely as possible with the components of the California Test of Personality under the two main headings of self and social adjustment.
Reliability and Validity of Personality Tests

There is comparatively little information on the reliability and validity of personality tests. This lack is due in part to the difficulty of obtaining such data, and in part to disagreement among test-makers on what constitutes a criterion of adjustment.

The reliability of personality tests has been found to be comparable to that of many widely used tests of mental ability and achievement. The authors of the *California Test of Personality* report the coefficients of reliability for the intermediate and secondary series used in this study to be in the neighbourhood of .90. The correlations were obtained with 792 cases by the split-halves method corrected by the Spearman-Brown formula.

Pintner, Forlano, Greene, Eisenberg and Traxler are in general agreement that standardized personality inventories do possess reliability. However, they do not agree on the degree of reliability. In their studies, the reliability scores range from .74 to .91.

Pintner and Forlano studied the reliability of devices for rating personality. Their first study (176,p.97) was based on Pintner's "Aspects of Personality Inventory." The inventory was given to 58 boys and 42 girls in grade V. The test was repeated four times at intervals of two weeks. It was found that the stability of the scores for each individual was high. The authors concluded from this evidence that
"children tend to be consistent in their responses . . . . .
What we are measuring is not some unimportant trait that fluctuates from day to day, but rather something more basic and stable in the personality make-up of the child." Likewise, Benton and Stone (25) and Neprash (164) found the percentage of changed responses did not vary after an interval of a week or two.

A later study by Pintner and Forlano (175) gave evidence that the consistency of response to personality questionnaires increases slightly with age. They define consistency as the marking of items the same way after two-week intervals. The study does not indicate that children are more inconsistent than adults are; it suggests quite the opposite, for 71 percent of the children had consistency scores comparable to those found for adults. A study by Eisenberg and Wesman (69) substantiates the findings of Pintner and Forlano that personality questionnaires are reliable. The investigation by Lentz (69,p.333), who used the retest method, bore out these same conclusions of high reliability.

Tyron (229) studied 300 children, aged 11 and 12 years, to determine the constancy and generality of emotional adjustment as measured by a questionnaire. She reports consistent and constant individual differences in emotional adjustment.

Traxler (227), in a very complete survey of the "Use of Tests and Rating Devices in Appraisal of Personality," reports
numerous studies which found high reliability for personality tests. One can conclude from the above evidence that personality rating devices possess high reliability.

A study of attempts to validate the instruments of measurement in the personality field reveals low measures of validity. Strang (207), Symonds (216) and Clarke and Smith (52) all found limited validity. The latter investigated the validity and prognostic value of the Bell Adjustment Inventory, 1934 edition, and The Washburne Social Adjustment Inventory, 1939 edition. Validity was determined by comparing the scores made by 138 students on the inventories with faculty ratings of these students on traits similar to the several sections of the inventory. The correlations between the Bell Inventory and faculty ratings varied from -.319 to .165; the correlations between the Washburne Inventory and faculty ratings varied from -.298 to .348. It was concluded that the Bell and Washburne inventories were not valid indicators of student adjustment as it prevailed at the Rochester Athenaeum and Mechanics Institute. However, the authors point out several weaknesses in their study: there was a relatively small number of cases; faculty ratings were subject to many inaccuracies, such as rating noisy and aggressive students as poorly adjusted and overlooking the quiet, retiring individual; the faculty may often have been too generous; there may have been hidden and suppressed maladjustments which were not visible in day-to-day classroom activities. Hence, the faculty ratings may
have been invalid rather than the test results.

Other papers also stressed the weaknesses in the methods of validation so far employed. Validation is often attempted on the basis of teacher and counsellor ratings. Yet studies have found that teachers' opinions of personality adjustment are not highly reliable. Burt (42), in a study of the reliability of teachers' assessment of their pupils, found that teachers tended to be more reliable in assessing industry, attainment in school work, and character than they were in assessing special abilities and neurotic tendencies. Burt defined reliability in his study as the "ratio of true variance to total variance, i.e. freedom from error." Laycock (133,p.27), Mitchell (152,pp.306-7), and Wickman (240,pp.159-60) consider that there is little reliability in teachers' and counsellors' ratings. Many areas of personality such as retiring or withdrawing action, social skills, or attitudes about oneself, which questionnaires try to measure, are not normally thrust upon the attention of teachers. In addition, the complexity of the intercorrelation of personality traits as shown by Terman (218,p.116) makes it even more difficult for teachers to rate students' personality accurately. This tendency towards unreliability of teachers' estimates of pupil personality may account in part for the small correlation between the teachers' assessment and test results.

However, the unreliability of teachers' ratings is not the only factor causing low validity measures for personality
questionnaires. Strang (207, p. 211) points out that the validity is lowered by various sources of errors within the tests themselves:

a) Students have a natural incentive to make a good showing;

b) Questions in the inventory do not present the same stimuli to every individual; each person interprets the items in terms of his own experience and immediate mood;

c) A satisfactory criterion of validity is difficult, if not impossible, to obtain;

d) Chance enters into the total score of many personality tests;

e) A psychologically sophisticated, maladjusted person can answer the questions in such a way as to obtain a favourable score.

To these sources of errors should be added that found by Symonds and Jackson (216). After surveying questionnaires, they concluded that the seclusive type of student tends to rate himself too low, and the boisterous rate himself too high in adjustment.

The authors of the California Test of Personality in the manual of directions (53, p. 4) caution that "the validity of any instrument is dependent not only upon its intrinsic nature but also upon the manner in which it is to be used. The latter point is an important consideration in the validation of
instruments in the personality field." Unless the rating device or questionnaire is well known to the administrator of the test, and its weaknesses and strengths known to him through experience, then, in no true sense, can the personality test results be considered to be valid measurements of personality adjustment.

Though high validity of personality tests has not been found, a report by Greene and Statton (93) suggests that whatever personality tests try to measure, the tests are in substantial agreement in their measurements of many areas of adjustment. These men correlated the respective factors of the Bell Adjustment Inventory, the Bernreuter Personality Inventory and the Willoughby Emotional Maturity Scale. Greene and Statton considered the correlations they found between the test factors to indicate that the tests were useful for group, though not for individual, differentiation.

It must be concluded, on the one hand, that few studies to date have revealed high validity for personality tests. On the other hand, there are some indications that the methods of validation used so far are not in themselves valid, and therefore, that it has not yet been proven that the tests do or do not possess high validity.

Patterns of Behaviour Indicative of Maladjustment

Before attempting to determine the causes of maladjustment, one must be able to pick out patterns of behaviour
indicative of maladjustment. Contrary to current opinion, this is a difficult task, for there is no sharp line between satisfactory and unsatisfactory behaviour. Furthermore, behaviour that meets with social approval is not always acceptable from the viewpoint of the mental hygienist. It is often, moreover, not a question of what is wrong with the child's behaviour, but what is wrong with the home or school environment. In addition, behaviour characteristics undesirable at the adult or adolescent age level are not necessarily undesirable in the child.

**Teachers' Ability to Diagnose Maladjustment.**

Can teachers recognize patterns of behaviour which suggest maladjustment? Most studies of this question conclude that the answer is "No." Laycock (133) made a study of teachers' reactions to the maladjustments of school children. He found that teachers emphasize violations of general standards of morality and integrity, transgressions against authority, violations of school regulations and requirements, rather than difficulties with other children or retiring or negative patterns of behaviour. He found that teachers and mental hygienists ranked the seriousness of certain types of maladjustments in almost the reverse order.

Garinger (85) reported this same tendency. As a result of his questionnaire to 312 high school teachers, he found a tendency "for educators to magnify offences against school regulations and moral code and to ignore those that denote
lack of personal and social adjustment." These findings are in general agreement with the extensive study made by Wickman (240, pp. 159-60). Wickman concludes that "our experimental results may be summed up in two statements: To the extent that any kind of behavior signifies attack upon the teachers and upon their professional endeavors does such behavior rise in their estimation as a serious problem. To the extent that any kind of unhealthy behavior is free from such attacking characteristics does it appear, to teachers, to be less difficult, less undesirable and less significant of child maladjustment."

Contrary to the findings just outlined, a study made by Mitchell (152) indicated that teachers' awareness of maladjustment was much more in accordance with that of psychologists or mental hygienists in 1940 than it was in 1927. Mitchell compared the ratings made in 1927 by teachers with those by mental hygienists on certain behavior problems of children. He made a similar comparison of their 1940 ratings. He found that present-day teachers usually considered non-aggressive traits more serious than did teachers in 1927. The 1940 coefficient of correlation between the ratings of mental hygienists and teachers was found to be .70; the coefficient for 1927 was found to be -.08. Mitchell concluded that various educative factors had brought teachers and mental hygienists to a closer agreement on what constitutes maladjustment.
Lovell and Sargent (140, p. 183-8) compared teachers' diagnosis of maladjusted children with clinical findings. These investigators gave Rogers' Personality Adjustment Scale for Children to 370 male cases, largely below grade nine, who had been referred to Northwestern University Psychological Clinic by their teachers. The teachers' opinions, the test results and the examiners' diagnosis were compared in five areas of personality. This comparison is summarized in Table I.

**TABLE I**

NUMBERS OF PUPILS CLASSIFIED IN VARIOUS CATEGORIES BY TEACHERS, TESTS AND CLINICIANS

<table>
<thead>
<tr>
<th></th>
<th>Number referred by teachers</th>
<th>Number indicated by Rogers' Test</th>
<th>Number diagnosed by examiners</th>
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<tbody>
<tr>
<td>Feelings of inferiority</td>
<td>3</td>
<td>79</td>
<td>86</td>
</tr>
<tr>
<td>Family maladjustment</td>
<td>6</td>
<td>86&lt;sup&gt;x&lt;/sup&gt;</td>
<td>157&lt;sup&gt;xx&lt;/sup&gt;</td>
</tr>
<tr>
<td>Social maladjustment</td>
<td>34</td>
<td>131</td>
<td>65</td>
</tr>
<tr>
<td>Physical disability</td>
<td>2</td>
<td>0</td>
<td>51</td>
</tr>
<tr>
<td>Daydreaming</td>
<td>3</td>
<td>84</td>
<td>28</td>
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<sup>x</sup> Not as many factors considered as examiners' diagnosis included.

<sup>xx</sup> Included fixation, over-indulgence, neglect, family discord, overstimulation.
As indicated in Table I, the investigators found that examiners and teachers did not agree on the symptoms of maladjustment. This is not to say that the teacher had overlooked the symptoms found by the examiners, but rather had considered other factors more important or pertinent. Daydreaming, inferiority feelings, and difficulties caused by family relationships may easily be mistaken for other things by the teacher. Only in three cases did the teacher diagnose feelings of inferiority, while the test diagnosed 79 cases and the examiners 86. Teachers did not appear to know the home situation very well either for they found only six pupils having maladjustments in family relations while the Rogers' test found 86 cases and the examiners, considering many home factors, found 157 cases. Physical disabilities appear to be generally overlooked by teachers as causal factors of maladjustment. The clinicians found only 65 cases to be socially maladjusted, but 131 cases disclosed social maladjustment as measured by the Rogers' test.

In conclusion, it must be admitted that the evidence presented by most educators shows that teachers are not able to identify maladjusted students with any high degree of accuracy. Mitchell's study (152) indicates, however, that teachers of today agree more closely with mental hygienists than they did in 1927 on what symptoms indicate serious maladjustment (correlation in 1940 was .70; correlation in 1927 was -.08).
Normal Behaviour Patterns

Before patterns of maladjusted behaviour can be properly discerned, a clear picture of what is considered as normal behaviour must be visualized. The characteristics of the well-integrated personality, as suggested by various writers, are classified here under the two main headings of the California Test of Personality, namely, self and social adjustment.

In self adjustment, the individual:

1) maintains good health through proper living;
2) knows his own weaknesses and strengths and does not try to deceive himself;
3) recognizes facts and faces them;
4) gains confidence by accumulation of moderate successes instead of expecting too-easy success;
5) reacts normally to emotional situations;
6) refuses to worry about what cannot be helped;
7) possesses a wholesome attitude towards sex;
8) is temperate in satisfying his basic needs;
9) is not excessively argumentative or boastful;
10) generally fulfils his promise to do something;
11) usually persists until finished in whatever he starts;
12) speaks with normal fluency - does not stammer;
13) is usually in favour of proposed activities;
14) generally tells the truth;
15) is generally happy, not easily depressed;
16) is active, wants to do things, not sleepy;
17) is free of neurotic traits such as biting finger nails or grimacing.

In social adjustment, the individual:

1) participates in and enjoys normal social life;
2) plays as well as works; makes each contribute to the other;
3) is fair in dealing with others;
4) is neither too independent nor dependent;
5) is open-minded;
6) inhibits personally and socially undesirable motives, tendencies and impulses;

1. See reference numbers: 1, 6, 84, 117, 195, 225.
7) seldom fights with playmates; not over-pugnacious;
8) seldom plays truant from school or home;
9) is no "teacher's pet" or "goody-goody;"
10) appears free from worry and over-sensitiveness;
11) generally conforms to rules and discipline;
12) does not steal;
13) is not retarded in school work;
14) is not a bully, a liar or coward;
15) has reasonable self-confidence;
16) has satisfactory home and community relationships;
17) has satisfactory social standards and skills;
18) enjoys relative freedom from attention-getting or sympathy-getting mechanisms.

Normal people are not only those located at the exact centre of a distribution for any given characteristics, but include many on either side of the centre. According to Cole (54, p.241) "normalcy is an area, not a point. It could be statistically defined as that area of a distribution within which 80 to 85 per cent of the cases fall." Teachers must reconcile themselves to the fact that students can be widely different from one another and yet be normal. Cole lists the adjustment characteristics of normal adolescents as: concern over physical growth and sexual development; self-consciousness; great sensitivity to social stimuli of all sorts; heterosexual interests; great concern over appearance, clothes, reputation of friends and social behaviour. Normal adolescents have occasional trouble with school discipline and violently dislike one third of their teachers. They often attempt to escape from uncomfortable situations by daydreaming. They belong to a crowd and go about together, are blindly loyal to these friends, and are intolerant of other social groups. Morally, their ideals may, or may not,
be socially acceptable, and they are likely to crib on ex-
aminations unless supervised. These young people reveal no
great interest in school work and prefer athletics, team
games and social affairs.

Doll lists in the Vineland Maturity Scale (68) the fol-
lowing signs of social maturity for an individual from 18
to 25 years of age: goes to distant places alone; looks after
own health; goes out nights unrestricted; controls own
expenditures; assumes responsibilities beyond his own person-
al needs; performs skilled work; engages in beneficial re-
creation; inspires confidence; can be relied upon in times of
stress; fills positions of social trust; shares community
responsibility; creates his own opportunities; and promotes
the general welfare. These are, if not standards, at least
goals for adolescents.

Maladjusted Behaviour Patterns

When a clear conception of normal adjustment has been
gained, one is better qualified to detect symptoms of malad-
justment. Patterns of behaviour indicative of maladjustment
must not be confused with causes of maladjustment. In general,
faulty adjustment is the symptom of a child's losing battle
for self-reliance, achievement, status in a group, and so on.
The first task of the teacher and the counsellor is to re-
cognize the symptoms before proceeding to a diagnosis and
determination of the causes of the maladjustment.

Various groupings of symptoms of maladjustment have been
suggested by writers.\footnote{1} In general, there is great overlapping
between the categories. Ackerson (1,p.54), who made a study
of 5000 problem children suffering from one or more of 478
different personality difficulties, reports that the 17 com-
mon symptoms were:

1) Restless, irritable temperament,
2) Disobedience, incorrigibility,
3) Retardation in school,
4) Temper displays, "tantrums,"
5) Listlessness, lack of initiative and ambition,
6) Stealing,
7) Immature and impaired manner of judgment,
8) Fighting, quarrelsomeness, violence,
9) Lying,
10) Enuresis beyond the third birthday,
11) Poor school work,
12) Crying easily,
13) Masturbation,
14) Truancy,
15) Sensitiveness,
16) Worry in excess,
17) Bashfulness and shyness.

Slattery (195,p.46) includes other common symptoms of
emotional maladjustment. He describes the maladjusted adol-
escent as:

1) The boaster;
2) The "goody-goody" pupil;
3) The excessively argumentative individual;
4) The negative pupil who is usually against
   any proposed action;
5) The bully;
6) The pupil who promises to do something, but
   always fails to do so, or to do it on time;
7) The stammerer;
8) The one who constantly erases written work;
9) The one whose ideas frequently become blocked
   when he is trying to express his thoughts;
10) The one who takes small objects;
11) The one who chews his finger nails or pencils;
12) The one who writes sex notes, who writes
    obscene words or draws obscene pictures.
\footnote{1. See reference numbers: 6, 84, 117, 120, 195.}
Frederiksen (64), dealing with common evidences of pupil maladjustment in a city school system, mentions some of the following more general symptoms: the undisciplined child; the child who missed social contacts; the socially-immature child - a prankish "playboy;" the one who lacks energy or is mentally or physically handicapped; the one who fails to stick to a job; the child who shows a lack of security. Woolf (254) found that maladjusted boys and girls whom he studied were super-sensitive, self-conscious, bitter, and had feelings of inferiority. They hated people, moped, cut classes and cried often. Cole (54, pp. 324-5) lists a complete and extremely useful survey of symptoms to enable teachers to recognize types of abnormal behaviour under the headings of: physical symptoms of nervousness, symptoms of emotional preoccupation, hysterical symptoms, exhibitionism and emotional immaturity.

From this literature on symptoms of maladjustment, it can be seen that, although authors vary in their way of expressing the symptoms, and in their regard for the seriousness of each symptom, nevertheless, there is much general agreement.

A description of symptoms of maladjustment would not be complete without particular mention of the delinquent adolescent and the chronic emotional deviate. Cole (54) found that delinquent adolescents rarely get into high school; do poor
work; are irregular in attendance and do not like school.

Delinquents are generally emotionally unstable and unadjusted.

"They are not reconciled to society as it is constituted. They like the wrong people and want to do the wrong things. They are bored with the ordinary ways of living and want excitement and change. They react to the stresses of everyday life in unusual ways. They resent discipline, and discipline leaves little or no effect upon them. They will not submit to normal social restrictions but set about making their own society. All observations and tests produce the same results: that delinquents differ from normal children mainly in their social and emotional adjustments. Thus, in one careful study, it was found that, of 1,343 delinquents, 97 per cent showed social maladjustments, 83 per cent maladjustments in school, and 77 per cent inability to adjust to their homes" (54, p. 262).

Consideration should also be given to the neurotic or emotional deviates who make up from 3 to 15 per cent of the adolescent population. Cole (54, pp. 286-315) describes neurotic symptoms of a serious nature:

**Neurasthenic symptoms:** Always tired, preoccupied and withdrawing—-with few friends;

**Hysteria:** Excitable, voluble, irritable, overactive with violent outbursts;

**Fanatic symptoms:** Chronic attitude of suspicion and mistrust, fixity of ideas and tendency to build up whole systems of interrelated ideas, many of which are untrue;

**Feelings of inferiority:** (Which may be due to anything real or imagined) Withdrawal especially from competitive activity, overcompensation;

**Psychopathic symptoms:** Utter irresponsibility, inability to learn adequately from experience.
Factors Related to Maladjustment

The Difficulties and Methods of Diagnosis

When the overt actions which indicate maladjustment are recognized, one can then proceed with a diagnosis of the trouble. For adequate diagnosis of causes of maladjustment, teachers require a knowledge of proven methods and of the difficulties and hazards in identifying causes.

As defined by Tiegs and Katz (225, p. 177), diagnosis is

"the process or technique by which the causes of a problem, difficulty, or particular pattern of maladjustment are identified. It involves a study of the origin and development of the difficulty and embraces a consideration of such factors as capacities, abilities, skills, special talents, special disabilities, work methods and achievements. More particularly, it involves a careful and comprehensive investigation and evaluation of a particular pattern of maladjustment in the light of the factors presented above."

The task of accurate diagnosis is, therefore, a difficult one, beset with numerous problems and pitfalls. Rugg (188), Jersild (115), Allport (4), and Carberry (47) point out these various obstacles. Rugg reasons that, since diagnosis deals with highly emotionalized areas of experience, there are dangers of misrepresentation because of traditional prejudices (for example, regarding "only" children as being spoiled or conceited) or because of the "halo effect" which is one of the most constant and disconcerting sources of error. In addition to these problems, Jersild points out that, not only is there no sharp line between what might be
considered as ideal behaviour and behaviour disorders, but there is also the problem of whether the trouble lies within the student, within the requirements and conditions of the school, or within the social customs and standards.

Common sources of error in the diagnosis of maladjustment mentioned by Allport (4) include:

1) Over-simplification on account of the limitations of human intellect, and emotional prejudices of various kinds;
2) Central tendency of judgments, i.e., judges avoid extreme values on rating scales;
3) The tendency to give complimentary judgment when in doubt.

Kanner (116, p. 160) cautions that the discovery of the causes depends upon the recognition of the fact that "causes of a particular maladjustment can seldom, if ever, be determined by merely observing the manifestations. No single cause or set of causes is always associated with a certain kind of misbehavior." Hence, it is important to be aware of all the contributing factors. This fact presupposes the need for an objective and orderly procedure in gathering data from many pertinent sources. Similar emphases are made by Tiegs and Katz (225), Griffin, Laycock and Line (94, p. 85) and Van Alstyne (231).

Some general suggestions offered by Tiegs and Katz (225, p. 199) regarding the approach to diagnosis are:
1) Be content with watchful waiting until sure a problem exists;
2) Be cautious in asking questions of an intimate nature. Do not be too aggressive;
3) Keep a sympathetic attitude at all times. The pupil should feel that the examiner is on his side;
4) Do not be over-critical. A student needs security rather than criticism;
5) Keep a sense of humour;
6) Avoid quick decisions;
7) Use simple, understandable language;
8) When necessary, temper sympathy with sternness. Do not let the student feel that he can "get by."

Laycock (94,p.85) considers that stereotyped forms of record cards often supply a minimum of significant and useful information about a particular child. "It is much better, with the data collected, to write simple descriptive accounts of the case in a manner thoroughly objective." Further, it is most important for the teacher to discriminate between facts as he knows them and "facts" reported by other people. Diagnosis and interpretation should be reserved until all available facts are on hand and critically analysed.

The diagnostic approach to classroom problems is essentially the same, whether it be recommended by Van Alstyne, Kanner, Laycock, or Tiegs and Katz. For brevity, the one outlined by Laycock (94,pp.85ff) is summarized. Laycock stresses the need in diagnosis for the following information:

1) Information from the school board - (from the cumulative record card if possible) - birth date, age on entering school, days in each grade, days absent, achievement, frequency of changes of schools, medical record, defects, illnesses, etc;
2) Information from the parents - position in family, early development, sleeping and recreation facilities, socio-economic status, attitude of family to child and of child to child;

3) Information concerning classroom behaviour - a written description of chief characteristics of the child as observed in classroom - habits of overt action, nervous habits, speech, language, work habits, special interests;

4) Information from the child - by personal interview, intelligence tests, educational tests, etc.

Tiegs and Katz, and Van Alstyne obtain the necessary information for diagnosis from the use of questionnaires and ratings, personality tests, source folders, observation, and information about community influences. Baker (15) stresses objective and scientific evaluation of such data by the use of a scale such as the Detroit Scale of Behavior Factors, which assigns definite scores to 66 factors.

A knowledge of these recommended methods of diagnosis combined with an awareness of the sources of errors in such work will do much to eliminate mistaken judgments of the causes of maladjustment.

Causes of Maladjustment

The causes of maladjustment arise from the inability of the student to meet his own peculiar physical and psychological needs. The maladjustment seems to be due, not so much to a lack of effort, as to the student's choice of undesirable methods of dealing with his problem, such as, extreme forms of aggression, compensation or escape.

If a teacher is to be capable of diagnosing unsatisfied
needs, she must have a sound knowledge of the fundamental psychological requirements of each individual. Such needs are not separate identities operating singly in the personality. Strang (206, p. 51) points out that "in every case, the need is part of a total pattern or scheme of values, involving both the individual and his environment." Categorization of needs is done, therefore, merely for descriptive purposes. There are many classifications in use such as the one suggested by Park and Burgess (171), by Frank (82), or by Prescott (178, p. 114). Prescott divides the needs into three main groups: physiological, social or status, and ego or integrative. The writer has, in this study, grouped them into physical, intellectual and psychological.

Physical Causes of Maladjustment

The physical causes of maladjustment will be dealt with first. According to Bosset (35, p. 3), mental hygiene "is a mosaic of aspects of biology, medicine, psychiatry, psychoanalysis, psychology, euthenics, etc." No line of separation should be drawn between mental and physical hygiene by the professional worker. Meyers (157) contends that physical defects tend to foster personality defects. He illustrates how every illness of a child makes it harder for the parent not to spoil him by over-mothering and, hence, cause the child to find social adjustment difficult.

Physical disabilities seem to be much more numerous than parents and teachers realize. Bentley (24) reports that four
out of every six children have some physical defect that is damaging to personality. Some of the common physical imperfections which cause psychological distress are disorders of ear, nose, throat; defects of eye, spine, feet and legs; postural defects; and abnormalities of size. As further evidence of the frequency of physical defects, Fenton and Wallace (76) report that the number of recommendations of a child guidance clinic for improvement of physical well-being was exceeded only by the numbers made for improvement of the home situation and of the school.

Although Pope (177) reports that slight importance is attached to health by adolescents themselves, Bursch (41), Jersild (115), Cole (54) and Topper and Mulier (226) all report poor health to be a contributing factor to maladjustment. Bursch's study revealed that 35 per cent of maladjusted children, in contrast to 5 per cent of normal children, were at least 10 per cent underweight. Jersild attributes irritability and lack of energy to poor health, physical defects and other physical factors.

The child's physique can be a significant cause of maladjustment according to Knight (123). The very tall child and the very short one face widely different problems of adjustment. The attitudes of teachers, pupils and community toward differences in appearance all affect the boy or girl—often adversely. The child may even receive too much
attention and protection. He may develop feelings of inferiority when physical handicaps prevent him from participating in games with ordinary children. As a result, he may withdraw or daydream.

In addition to these physical factors, the varying rates of the growth of organs and the resulting physiological unbalance during adolescence are of great importance to teenagers, since these changes are accompanied by innumerable adjustment difficulties. Beverly's description of adolescent growth (75,p.154) is clear on this point:

"At this period changes take place in the whole body. Apparently initiated and controlled by the glands of internal secretion, we see changes in stature, metabolism, resistance to infection, size of organs, - the heart usually doubles in size - and finally emotional development and maturing attitudes toward life. It is not uncommon to see a boy - less often a girl - grow from eight to ten inches in height in a single year. With this rapid growth, several characteristics and problems present themselves. There is awkwardness. The muscles and bones do not develop at the same rate; some muscles grow more rapidly than others. It takes several years for some boys and girls to achieve good co-ordination. This awkwardness gives rise to embarrassment. The individuals who grow rapidly are uncomfortable if they remain in the same position for more than a few minutes. The adolescent cannot stand up on his two feet like a gentleman!..... The rapidly growing adolescent boy or girl becomes fatigued easily. Many high school students are too tired to study at night."

This description omits the great demand that rapid growth makes upon the digestive system. The ravenous adolescent finds it very difficult to observe previously acquired table manners. Furthermore, the vigorous objections of adults do
not solve, but rather, aggravate this problem of youth.

The meaning of adolescence is well described by Frank (162,p.1) as both "a biological process and a social-cultural transition: The juvenile organism undergoes a process of growth and maturation as it moves toward adult size and functional capacity and, more or less concurrently, the individual must pass through a transition from the status and conduct of a child to the responsibilities of the adult."

"Like the god Janus, the adolescent faces two ways" (162,p.332).

**Intelligence as a Causal Factor**

Since mental capacity is part of an individual's natural endowment just as his physical capacity is, a consideration of the effect of intelligence upon personality adjustment will be given in this section. Bursch (41), Adam (2) and Smith (197) studied the role of intelligence as a causal factor in maladjustment. Bursch found, for example, that low mentality did not necessarily cause school maladjustment. In 3,000 cases of maladjusted students, he reported 15 per cent above average, 40 per cent average, 27 per cent dull and 18 per cent very dull or feeble-minded. Therefore, factors other than intelligence were also responsible for maladjustment. Adam found no relationship between I.Q. and the type of maladjustment. A similar finding is reported by Conrad, Freeman and Jones (162,p.179ff), who concluded that "in the mass, intelligence offers little or no prediction as to personal adjustment." They indicate that at least five
factors are involved in the relationship between intelligence and adjustment: "These are the child's absolute level of intelligence; the level of intelligence required in the activities toward which he is pointed through the ambitions of his family and friends; the social pressures which arise from such ambitions; his own felt needs and the level of aspiration and his actual achievement. These factors are interconnected in a variety of ways and a great variety of complex patterns may result."

Cole (54,p.344) found that dull adolescents are no different from anyone else socially and emotionally, provided their environment has not made too-heavy demands upon them. She points out, however, that dull adolescents develop undesirable personal traits when too much is asked of them. "They become discouraged, disillusioned, unhappy, truculent, and sometimes delinquent. Such traits appear at any level of intelligence among those who believe themselves to be chronic failures. A good adjustment is made out of successes - not failures. If dull children show unfavorable traits more frequently than those of average ability, it is because they have more occasion for despair."

In the case of the brilliant pupil, the same author (54,p.338) describes the problems of such a student as primarily personal. He has so little in common in an intellectual way with the majority of students that he becomes isolated and unsocial. Dale (62) disagrees with Cole's conclusion. Dale
gave a battery of 14 tests measuring intelligence, achievement and personality. "There appears to be reliable evidence in terms of the tests used that adjusted pupils are above average in intelligence and school achievement, and average in knowledge of social standards. Maladjusted pupils seem to be below average in intelligence, academic achievement and knowledge of social standards. Both groups are average in personality adjustment."

It must be concluded, on the basis of the data collected, that intelligence is not a major factor in causes of maladjustment, but only one factor among many others.

Psychological Causes of Maladjustment

This study turns now from a survey of the role of intelligence in personality to the psychological causes of maladjustment. Wrenn and Bell (256, pp.18-19) have indicated the following "basic problems faced by adolescents: 1) emancipation from the home; 2) establishment of heterosexuality; 3) determination of a vocational goal; 4) development of a sense of security - emotional, physical, economic; 5) the establishment of status (or acceptance among his fellows); 6) the development of a philosophy of life, the establishment of a satisfactory system of values and standards."

In the main, the way a student reacts or adjusts to these important needs comprises his personality. The manner and effectiveness with which he meets his personal and social
problems make up his "wholeness" which personality tests attempt to measure and describe.

Because the California Test of Personality was used in this study, the psychological causes of maladjustment have been classified to coincide as closely as possible with the components of that test. The test groups the components under the two main headings of self adjustment and social adjustment. These two general areas are, of course, not isolated from one another, but are simply parts of the whole dynamic personality picture. Since other investigators classify the causes differently, it will be difficult at times to separate the literature into these specific headings.

Psychological Causes of Personal Maladjustment

The first component listed under self adjustment is called self-reliance. The authors of the test claim (53,p.3) that "a student may be said to be self-reliant when his actual actions indicate that he can do things independently of others, depends upon himself in various situations, and directs his own activities. The self-reliant boy or girl is also characteristically stable emotionally, and responsible in behavior." A study of the questions on self-reliance indicates that the maladjustment may be due to lack of social skills and experiences (items 4,9,13), to lack of self-confidence (items 3,11), and to lack of concentration on the job at hand (items 6,15). Jersild (115,p.562) credits lack of self-reliance to lack of
ability, to little recognition and encouragement, or to a previous series of failures. Jersild believes that the most confident person is the one, who, other things being equal, is the most competent. The White House Conference on Child Health and Protection (238,p.40) found that nothing fails like failure, and that often no special study is ever made of a child till he is two years retarded in school. By this time, he is well grounded in habits of failure and discouragement. Wickman's study (240,p.171) reveals that feelings of dependency and inadequacy of pupils are often increased by teachers catering to the sympathy-seeking tactics of the children. The characteristic of self-reliance cannot be viewed in vacuo for it is interlocked and closely integrated with other aspects of personality. Causes which destroy self-reliance may also be responsible for developing other maladjustments.

The second component of self adjustment is called a sense of personal worth. The authors of the California Test of Personality consider that a student is maladjusted in his sense of personal worth when he feels that he is not well regarded by others, that others have no faith in his future success and that he has below-average ability. To feel worthy, the student needs to feel capable and reasonably attractive. This area of adjustment is similar to that designated by other authors as feelings of inferiority. Pope (177) reports that feelings of inferiority and superiority were the most numerous problems of personal adjustment cited by students in their essays on their own problems. Smith (197) found that those
who suffered from pronounced inferiority feelings were likely to have more than the average number of neurotic tendencies as measured by the Bernreuter Personality Inventory. He found also that delinquents reported a larger number of inferiority feelings than did non-delinquent children.

Tiegs and Katz (225, p. 342) give a very complete list of both organic and psychological causal factors of these feelings. Organic defects were not in themselves considered to be the cause of inferiority feelings. However, the resulting inability to compete successfully with peers and the teasing by playmates do tend to cause the child to feel inadequate, inferior and unattractive. These authors are of the opinion that most feelings of inferiority develop, not from physical, but from psychological, factors, especially the home environment. There, rejection, unfavourable comparisons, teasing, punishment, and over-solicitude are too frequently causes of maladjustment. As well as the home, the school environment may be a causal factor of feelings of inferiority if students are assigned school tasks beyond their ability or comprehension. Laycock (129) compared 51 superior students (median I.Q. 121) and 51 students below average in mental ability (median I.Q. 78). His study throws light upon some of the basic causes of inferiority feelings. It was found, over a three-year period, that the inferior group had higher ratings in undesirable personal traits such as over-sensitiveness,
day-dreaming, inferiority feelings, self-consciousness, nervousness, and suggestibility. Laycock concluded that "the differences in degree of maladjustment between the groups of superior and inferior children, are, to a very large degree, occasioned by the 'conflict over difference' or feelings of inferiority that have been occasioned in the latter group who are maladjusted to the curriculum and lock-step system of education." Because of repeated failures and of always being the "under-dog," those inferior in ability cannot fail to make unfavourable comparisons of their own poor ability with that of their companions in home and school. The same study gave evidence that students of the inferior group who were wisely handled were not maladjusted. Conrad, Freeman and Jones (162, p.32) found a close relationship between feelings of inferiority and attitudes of family, friends and school, and between the level of aspiration of the pupil and his actual achievement.

The feeling of personal freedom is the third component that is measured. The Manual of Directions (53, p.3) says a student is enjoying a sense of personal freedom "when he is permitted to have a reasonable share in the determination of his conduct and in setting the general policies that shall govern his life. Desirable freedom includes permission to choose one's own friends and to have at least a little spending money." An adolescent's feeling of personal freedom is,
therefore, connected with his emancipation from his home.

The Forty-Third Yearbook of the National Society for Study of Education (162,p.246) points out that "emancipation from dependence upon the family and from childish submission to parental authority are acute adolescent problems in our society. The poor adolescent may never in his life have had an opportunity to use judgment or take responsibility, but now he is berated for inability to take charge of his own life." Cole (54,pp.387-95) blames the home itself for many hindrances to emancipation from the home and for resulting adolescent maladjustments. Failure of parents to lessen strict control of children's spending money, of choice of friends and choice of vocation, or failure to allow adolescents to solve their own difficulties are some of these stumbling blocks. Another hindrance to this emancipation is the strong tendency of parents to interpret behaviour of adolescents by adult standards of conduct and attitudes.

Zachry (257,p.259) points out that "in our society, the child has two basic emotional needs: the need to achieve and the need for affection and security." The authors of the California Test of Personality call this need for affection and security a need for a feeling of belonging, and make it the fourth component of self adjustment. They consider that a student feels that he belongs when he enjoys the love of his family, the well wishes of his good friends, and a cordial relationship with people in general. According to Rose
adolescence is a transitional stage in which youth leaves a phase of life to which he is adequately adjusted and strives towards the unknown. The result is a feeling of uncertainty and insecurity with possible reactions of aggressiveness, self-consciousness and withdrawal. In addition to the factor of the onset of adolescence, factors contributing to feelings of insecurity may be real ones such as rejection by parents or teachers, or unreal when the child feels, without due cause, that he is unwanted.

The California Test of Personality tries next to measure freedom from withdrawing tendencies. The literature on the causes of withdrawing is quite extensive. According to Cole (51,p.307), withdrawing tendencies are nearly always associated with serious or chronic feelings of inferiority. Katz (120) points out that students adopt day-dreaming and withdrawal tendencies as adjustment mechanisms in solving personal problems which cannot be solved simply or directly. For some, the easiest way out is to resort to negativism or fantasy. Tiegs and Katz (225,p.318) show how "the boy or girl who substitutes imagery for reality, thinking for doing, and wishing for acting curtails the possibility of engaging in normal social relationships. Such persons withdraw from social participation and become sensitive, lonely, and given to daydreams."

Finally, in self adjustment, the personality test used
in this study includes a measurement of freedom from nervous symptoms. This type of maladjustment is revealed, says Cole (54, p. 324), by various physical symptoms such as lack of appetite, eye strain, chronic fatigue, nail-biting, scowling, and constant restlessness. According to Olson (169) and Baker and Traphagen (16, p. 169), these habits may be caused by physical disorders due to undernourishment, lack of sleep, hereditary neurotic influences, or to physical weaknesses connected with some organic or glandular weakness. Besides primarily physical causes of nervous symptoms, there are numerous psychological causes such as feelings of insecurity due to rejection, unhappy homes, lack of friends or social skills (53).

Tiegs and Katz (225, pp. 300-7) have outlined some of the causes of specific nervous symptoms. Regarding nail-biting, they report studies by Kanner and Wechsler which indicate that the main cause is emotional tenseness resulting from faulty and highly emotional-toned punishments or feelings of being unwanted.

Tics may arise from organic or psychological factors according to Kanner's study (225, p. 303). The organic cause of tics is often irritation due to eye-strain or improper clothing or other disturbances of a physical nature. Nevertheless, Travis and Baruch (225, p. 304) found that the causes of tics are primarily psychological, arising from mental and emotional conflicts. A report by Mahler (146) indicates that
"recent tic research revealed that motor neurosis of which the tic is a part, often originates through interaction of a constitutional motor factor of the impulsive type in the child concomitantly with too much or too little environmental interference with the small child's diffuse expressive activities." Mahler and Cross (147) report a higher frequency of tics among children who were given by the parents an unsound importance in the family setting - e.g., out of 33 cases of tics, 12 were "only" children, 7 were "the baby", and 10 were the first living child.

According to several authorities such as Thorpe, Dunlop, Travis and others (225, pp.308-9), other nervous symptoms of maladjustment such as stuttering and stammering exist, not primarily because of a speech defect, but because of a major factor of personality maladjustment due to conflicts, emotional tensions and failure to meet basic motives and needs. These same sources (225, p.309) associate unfavourable home factors of nagging, ridiculing, or learning language that is socially taboo, with this type of maladjustment.

**Psychological Causes of Social Maladjustment**

The available studies on the causes of maladjustment toward self have been outlined. There remains a review of the causes of social maladjustment under the convenient groupings of the *California Test of Personality* - social standards and skills, freedom from anti-social tendencies, family relations,
school relations and community relations.

The research on the first two headings of social standards and skills is rather limited. Clarke et al (53, p. 3) describe the student who recognizes desirable social standards as "the one who has come to understand the rights of others and who appreciates the necessity of subordinating certain desires to the needs of the group. Such a person understands what is regarded as being right or wrong." The frequency of maladjustment in this area has been found to be relatively high. Nash (158) reported at least 25 per cent of school children needed special assistance to become effective in their social relationships. Cole (54, p. 213) reports a study by Pressey who found that even among young college women considered normal, 52 per cent reported difficulty in social adjustment, 25 per cent in social conventions and 57 per cent in moral or religious matters. Tiegs and Katz (225, p. 214) claim that moral and social standards are the product of imitation, understanding and habit. "Children's concepts of what is right and wrong are built up gradually on the basis of what is encouraged, tolerated, or avoided in the home."

These same authors (225, p. 206) blame another factor besides the home, namely, lack of school success, for inadequate social standards of adolescents. "The insecurities, inadequacies and inferiorities which produce such undesirable
behavior as rudeness, discourtesy, and bullying are often associated with lack of school success." They add that difficulties in social relations may be traced to emotional tensions in home and community, to lack of knowledge of social standards, or to lack of opportunity for developing social skills. Violations of social standards such as lying, stealing, cheating, and immorality are, according to Wickman (240, pp. 161-71), to be looked upon generally as evidences of teacher and parental mismanagement and misunderstanding. Since undesirable social standards of adolescents can be blamed on both the home and the school, the recommendation of Holbeck (103) for more and better understanding, agreement and cooperation between these two institutions cannot be overemphasized.

The authors of the California Test of Personality consider that the adolescent needs social skills to be socially effective. He needs to show a liking for people, to be of assistance to them, to be willing to inconvenience himself for others, and to be diplomatic in his dealings with both friends and strangers. In general, he will subordinate his egoistic tendencies in favour of the interests and problems of his associates.

Evidence has been found to indicate that maladjustment in this area is quite frequent. Pope (177) used the essay method to discover the personal problems of high school
pupils. Essays written by 1,904 students of grades nine to twelve inclusive listed 7,103 problems. Pope reports that one out of twelve students was conscious of inadequate social adjustment and felt a desire for social acceptance. Girls appeared more sensitive than boys towards problems of boy-girl relationships. Fenton and Wallace (76, p. 60) report that among types of recommendations made by guidance specialists who studied 795 cases, 412 recommendations were made to improve the opportunities for adequate social relationships.

Naturally enough, the causes of maladjustment in this area of social development centre around the inadequacy of home training and example, the lack of adequate opportunities for social relationships, the lack of friends and of the qualities of personal leadership. In a study by the case-history method, Symonds (214, p. 75) compared thirty-one accepted and thirty-one rejected children. He found that members of the accepted group were "socialized, cooperative, friendly, loyal, stable emotionally and cheerful," whereas those in the rejected group were lacking in stability, were given to attention-getting behaviour and showed pronounced delinquent and anti-social trends.

The symptoms considered by the authors of the California Test of Personality (53, p. 3) under the component of anti-social tendencies are: "bullying, too frequent quarrelling, disobedience, and destructiveness to property. The anti-
social person is the one who endeavors to get his satisfactions in ways that are damaging and unfair to others." Tiegs and Katz describe the anti-social person as a personality motivated by selfishness.

Cole (54, p.90) points out that anti-social tendencies are "the result of insecurity and inefficiency of some sort." Tiegs and Katz (225, p.207) and Louttit (139, p.478) believe the main causal factors are lack of school success and inconsistent home-training by which the children are confused and resort to argument, disobedience and defiance. Symonds (213, p.75) considers that homes which reject a member of the family frequently cause that rejected member to develop anti-social tendencies.

A good summary of the type of environment causing delinquency and anti-social behaviour is given by Cole (54, p.267). She believes it consists of: "1) a home in which parents are ineffective in discipline, unsuccessful economically, of not more than average native ability, of undesirable personal habits, and of questionable morality; 2) a neighborhood that is devised for adults, totally without safeguards for children, and largely without safe outlets for emotional and social life; and 3) a school that tries to make scholars out of nonacademic material."

The personality test used in this investigation next tries to measure a student's adjustment to his home situation. "The
student who exhibits desirable family relationships is the one who feels that he is loved and well-treated at home, and who has a sense of security and self-respect in connection with the various members of his family. Superior family relations also include parental control that is neither too strict nor too lenient" (53,p.3).

The frequency of maladjustment in this component is reported by Fenton and Wallace (76,p.60). Ranking the recommendations of guidance specialists in order of frequency, they found that those suggestions for improvement of the home conditions averaged 3.43 per case compared to the next highest of 2.65 for educational adjustment and 1.58 for improvement of physical well-being. In the home situation, most of the suggestions concerned social or educational work in the home (1.41 per case) and advice regarding methods of child training (1.30 per case).

The committee on the "Family and Parent Education" of the Whitehouse Conference on Child Health and Protection (239,p.7) studied 9,000 American students of grades VIII, IX and X. They found:

"The externals of home life like its economic status or its housing arrangements, while important, are not nearly so significant for personality development of the child as are the subtler and more intangible aspects of family life such as affectionate behavior, relations of confidence, inculcation of regularity in health habits and reactions to the illness or nervousness of parents."
Stemsrud and Wardwell (201, pp. 165-70) found that parental rejection combined with a measure of over-protection was the cause of maladjustment in many cases. Meyers (157) also found that the over-mothered and emotionally dependent child is timid and lacks social adaptation. He reports that jealousy of a better-appreciated brother or sister, the lack of adequate and early restraint in the home and the over-ambition of parents who force a child beyond his ability are causes of maladjustment, both in the home and at school. Witmer's (249) investigation of insane adults gives data concerning the characteristics of the homes in which these individuals spent their childhood. She found that a combination of the following factors repeatedly led to emotional deviation: constant friction between parents, an over-solicitous or dominating mother, a rejection of the child by both parents, or a marked emotional dependence of the child upon father or mother. Bell (22) and Tiegs and Katz (225, p. 343) confirm the importance of these causes of maladjustment. They list rejection, unfavourable comparisons, teasing, disapproval, unfair punishment, and over-solicitude as the parental attitudes least desirable for wholesome personality growth of children. Cole (54, p. 397) adds to these factors the failure of parents to "let go" the early domination of their children.

There are numerous studies and reports on the effects of size of family, relative position of children and sibling re-
relationships on personality adjustment to the home. Louttit (139, p. 282) and Witty (252) found that being the only child in the family is not, contrary to current opinion, a handicap. These men found that "only" children are not necessarily spoiled, conceited or otherwise difficult to manage. However, Louttit points out that position in the family has an unpredictable influence on any given child. Louttit's findings agree with those of Adam (2, p. 45) that problem children are more frequently found among first or second-born children. The effect of position seems dependent upon the attitudes of the other members of the family. The size of the family also appears to have some relationship to children's maladjustment. Bursch (41, p. 320) found an average of 1.8 school children in the average home, whereas maladjusted children came from families where 2.5 pupils were enrolled in school.

Bursch (41) and Adam (2, p. 45) found that marital status was a significant factor affecting the adjustment of the children to their homes. Bursch reported that one study of the homes of maladjusted children showed 15 per cent to be living with neither parent, 20 per cent with parents who were divorced and 62 per cent with the mother alone. Ninety-five per cent of cases lacked evening supervision. Adam found problem boys were more frequent in broken than in normal homes. Adam warns, however, that the influence of the disrupted home may be much less than has been commonly assumed. He bases this conclusion on his study of normal
and broken homes compared to the homes of servicemen where the fathers were away at war.

Educators find that the home factor is a direct cause of sexual maladjustment of young people. Frank (83), in an article dealing with "The Adolescent and The Family," found that faulty adolescent adjustment to sex problems or heterosexual misconduct was usually caused by early distortions, threats of punishment and emotionally-charged experiences related to sex taboos. The causes of sexual intercourse among adolescents are, in most cases, to be traced to faulty home conditions where there are low home standards and poor moral attitudes (225,p.329). Bernard (27,p.244) studied the effect of unmarried motherhood upon adolescent girls, and found that "all the girls showed effects of early emotional malnutrition; they received too little partental love, protection, esteem, encouragement, and liberation to develop adequate emotional security or inner controls and ideals in harmony with reality."

Cole (54,p.264) reports an extensive survey by Williams of 1,343 children who were problems in school. The delinquent home was found to be one of the major factors in causes of delinquency among children. Cole found 77 per cent of maladjusted children

"came from homes in which one or both parents were of low-grade mentality, illiterate, diseased, or immoral. From the above data it is clear that delinquents come from poorly equipped homes in which the parents are of low capacity, inferior economic status and questionable morals."
"There are two further characteristics of these homes, however. In half of those studied the parents were separated - by death, desertion, divorce, or absence of one parent from chronic illness or imprisonment .... In 70 per cent of the homes the discipline was either sadly lacking or quite unsound. The parents of delinquents are evidently people who have little control over themselves and even less over their children."

While all these "subtler and more intangible" (239,p.7) aspects of home relationships are extremely important, the externals of economic status and housing arrangements in family relations are also factors in home adjustment. Fisher (77) made a study of 360 problem and 360 non-problem children from grades I, III, V, VI, IX, and XII. He found that superior economic status of the home was more common to non-problem than to problem children. Bursch (41) also investigated the effect of economic status, reporting that 90 per cent of families which had maladjusted children had inadequate or irregular incomes - i.e., less than $800 per annum for two or more persons. He found that there was a significant relationship between crowded living conditions and maladjustment in school. He reports that 86 per thousand maladjusted children came from single-family homes compared to 183 per thousand from multiple-family homes.

The area of personality which is of special concern to educators is, of course, adjustment to the school. The study by Fenton and Wallace (76) to find relative frequencies of maladjustment found the number of recommendations made by the
clinic concerning educational maladjustment was 2.65 per case. When these recommendations were classified, modification of curriculum and instruction placed first in frequency (1.31 per case), classroom management second (.61 per case) and placement and progress third (.42 per case). In these areas one can expect to find some of the causal factors of maladjustment to school.

In a study of 7,103 problems mentioned in essays by high school students, Pope (177) found that 44 per cent of all their difficulties concerned study-learning relationships. Only one quarter of the students were concerned about future vocations, one tenth about personal adjustment and a similar number about home-life relationships. Girls were slightly more concerned than boys about their study-learning problems. When these school problems were classified, it was found that fifty per cent were due to relationships with teachers, to the amount of home study and to teachers' unfairness and stern attitude.

What are the causes of these problems? Hattwick and Stowell (99) found that problems of pupils, especially in the first grade, are influenced to a large extent by factors in the home.

However, the school system itself contains hazards to satisfactory personality development. Such handicaps to mental hygiene are listed by Ryan (189) and Witty (251).
According to Ryan, the more serious obstacles to wholesome adjustment are:

a) Rigidity of grades and promotions;
b) Recitations of the mere re-recitation type and homework lacking in real interest to the students;
c) The traditional and out-moded reliance upon examinations and marks;
d) Discipline of the punitive type instead of various forms of self-discipline.

The hazards in the school program mentioned by Witty included: lack of opportunity for creative expression; rigid administration including large classes, homogeneous grouping and departmentalization; unstable teachers; and too much subject matter with consequent failures. Worth (255, p. 54) reports that the school practices causing personality difficulties are: misplacement and failure in school; programs unsuited to a child's needs and abilities; uniform lesson assignments; race-horse competition; report cards showing relative position; blanket testing to determine efficiency of teachers in passing students; and X,Y,Z groupings.

The effects of marks and examinations as factors in personality adjustment have been reported by Ayer (14), Symonds (210) and Ryan (189). Ayer states that there is evidence of the essential value of marks to our educational system. "Experiments prove learners make the best progress when they are aware of the rate of their improvement."
However, he urges that "marks themselves should be made more reliable, more specific, and more discriminating. They should be used as checks and guides, rather than as rewards and punishments." Symonds claims that, "as in the case of school marks, the trouble seems to lie not so much with examinations as the way in which they are used." Examinations are causes of maladjustment when they are used as threats for failure or demotion, as speed forcers, or means of forcing students to study what is not of any real interest to the pupil. It was adequately shown by the extensive and long-range research of "The Eight-Year Study" (3) that rigidity of subject matter and formal examinations are not necessary to good all-round pupil development.

The effects of school acceleration upon personality and social adjustment are reported in studies by Wilkins (214) and Engle (71). Wilkins found that personality adjustment is probably not appreciably affected by the single factor of school acceleration. Engle reports there is some indication, although not statistically significant, that accelerated pupils are not so active socially as their non-accelerated classmates. However, when compared with students of their own chronological age, they are just as active socially. It seems logical to conclude from these studies that reasonable acceleration is not a major cause of school maladjustment.

In studies by Boynton (38), Goldrich (91), Carrington (48) and Wickman (240), one important cause of pupil maladjustment to school is reported to be the teacher herself.
Boynton and others investigated the relationship of the mental health of 73 teachers and the pupil well-being of 1,195 students in Nashville. The study "seems to give very definite, clear-cut evidence to the effect that emotionally unstable teachers tend to have associated with them children who tend toward instability, whereas emotionally stable teachers tend to be associated with more emotionally stable pupils." Carrington points out that a teacher needs good health, a pleasant voice, attractive appearance, a sense of humour, fairness and appreciation of individual differences. A similar viewpoint is expressed by Goldrich.

Not only the personality of the teacher, but also her methods are important to good mental hygiene in the class. Wickman's study of children's behaviour and teachers' attitudes revealed at least two ways in which teachers increased difficulties of adjustment and undesirable social behaviour. He found that teachers often protect the solitary, dependent child and thereby encourage this unsatisfactory type of adjustment. On the other hand, the teacher very often punishes the attacking type of conduct. Since the punishment seems personal to the student, further attacking behaviour is thereby stimulated. The comparative effects of autocratic teacher leadership and of friendly and democratic leadership were examined by Lippitt (136,p.147) by studying the amount of hostility expressed in the children's conversation. Autocratic
control in the classroom produced sixty times as many instances of hostility as democratic control, which greatly decreased resistance, demands for attention and hostile criticism. Hobson (102), after giving a test in mental hygiene principles to 1,600 teachers, found that enough teachers showed a lack of knowledge of those principles to justify special training courses.

The committee on "Socially Handicapped" of the White House Conference on Child Health and Protection (238), and Tiegs and Katz (225,p. 59) feel that truancy and other infractions of rules are natural and expected indicators of the school's failure to meet the needs of the child. A careful diagnosis of the school set-up may be necessary to determine the real causes of truancy.

The role of emotional problems in school adjustment has been studied by Karlan (119). He found that emotional problems accounted for many of the difficulties in school work, but that "guidance has improved the work of most of these students in addition to helping in the adjustment of their personalities." Of thirty-one cases treated for emotional maladjustment, 28 successfully completed two terms of work in one after having previously failed the same course.

The final section of social adjustment in the California Test of Personality deals with community relations. It includes the adolescent's adjustment to neighbours, strangers,
and foreigners, as well as attitudes to laws and regulations pertaining to the general welfare. Guidance courses of school curricula usually include a generous section on the study of the community. Generally these courses do not emphasize the factors in the structure of the community which cause personality maladjustment. Tiegs and Katz (225, pp. 249-67) devote a whole chapter to the influences of the community which, for good or ill, play upon the development of youth. They (225, pp. 37-9) found that the main pitfalls of urban centres included: failure to provide schools for abnormal children, the lack of properly administered charity and relief, prejudice and dislikes, graft and corruption, broken laws, lack of proper sanitation and recreational facilities as well as bad housing. Bursch (41, pp. 320-3) points out that close crowding of homes into small areas and the close crowding of people in homes have been found to hinder personality adjustment.

Cole (54, pp. 459-81) places a different emphasis upon the community forces which cause youth to develop unsuitable patterns of behaviour. To her, the great cause of these dangerous situations is the "general indifference of adults toward the safety of youth." Community factors which prove dangerous to youth include granting drivers' licences too early, permitting youth to obtain tobacco and liquor while too young, and allowing improper places of amusement such as the cheap dance hall, poolrooms, houses of prostitution and the like.
Cole feels that any community whose adults allow such forces to prosper unchecked is only asking for adolescent moral collapse.

Cole studied the effects of the movies on the adolescent group. She reports Peterson and Thurstone's research to determine the effect of movies on racial prejudice. They concluded that the pictures used in their study markedly increased prejudice, and that these attitudes persisted for several months - even becoming apparently permanent prejudices. In another study which Cole describes, it was found that movies had a bad influence on delinquents. On the other hand, Cole reports good effects of movies shown by other studies. She concluded that "motion pictures are neither exclusively bad nor exclusively good influences. It is, in fact, probable that what adolescents get from the theatre is mainly a crystallization of points of view, desires, or attitudes already in existence."

Age of Onset of Specific Forms of Maladjustment

This study now turns from a survey of literature dealing with causes of maladjustment to a determination of the age of onset of specific forms of maladjustment. Tiegs and Katz consider the critical periods of adjustment for an individual to be: early childhood, early school years, adolescence and leaving school, getting and holding a job, courtship and marriage, and homemaking. In other words, they portray
the whole life history of an individual as a series of periods, each one of which may subject the individual to extra hazards. This study will deal primarily with the age of adolescence and the specific forms of maladjustment characteristic of this period.

The onset of puberty with resulting physiological unbalance and the growth of secondary sex characteristics bring many new adjustment problems to adolescents. Cole (54,p.36) presents the findings of several studies which place the onset of puberty at nine to eighteen years of age for girls and twelve to eighteen for boys. Within this wide range in the age of reaching maturity, one may expect to find the onset of any of the many forms of maladjustment due to physiological factors.

Owing to the fact that girls tend on the average to grow up or reach pubescence about two years earlier than boys, problems of social adjustment for girls arise in the junior high school period, where adolescent girls are limited to the company of relatively immature boys of their own chronological age. "Approximately two thirds of the girls at any one time are in the post-pubescent stage while an equal number of boys are still pre-pubescent in attitudes and behavior" (204,p.615).

Strang reported a study by Stolz et al (204) showing that problems of social adjustment come to the fore in the eighth grade and continue through the ninth and subsequent grades.
It was shown, furthermore, that during the eighth and ninth grade adolescents come into conflict with adults who often do not understand the adolescents' ways of thinking and acting. Strang points out that problems of love and friendship which may or may not cause problems of maladjustment, reach a peak in frequency between sixteen and twenty years of age.

Mackenzie (143) in the Forty-Third Yearbook of the National Society for Study of Education reported that:

"By the eighth or ninth grade a strong social interest develops, in many cases to the exclusion of former concerns. For some boys and girls, however, this social concern does not appear until later. By the time they reach the eleventh and twelfth grade many adolescents, particularly the girls, will have made more or less satisfactory adjustment with their age mates and will recognize their need for several of the school's offerings. Many will have a strong interest in themselves, their beliefs, their purposes and their future. Some will become very much occupied with intellectual activities. A few will arrive at their highest level of interest in serious study. A considerable number of the boys may not arrive at this stage until the thirteenth or fourteenth grade."

Pope's study (177) found that problems of social adjustment became less serious as pupils advanced through high school. It would appear from these studies, then, that the onset of problems of social adjustment usually appears in early high school grades.

Strang (204, p. 509) reported some evidence which indicates that "under ordinary school conditions 'behavior problems'
reach a peak at about thirteen or fourteen years for boys and at fifteen or sixteen years in the case of girls. More problems are reported for boys than girls, in the ratio of about ten to six." Strang found the behaviour problems listed most frequently to be:

1) Aggressive and antagonistic behaviour,
2) Disobedience and disrespect,
3) Difficulties in school work, daydreaming,
4) Failure to cooperate,
5) Truancy, lying and stealing,
6) Nervousness and hurt feelings.

In a study based on the autobiographies of adolescent girls, Rose (187,p.46) found that adolescence brought with it many other problems of adjustment. He found that feelings of uncertainty and insecurity became more pronounced, as did reactions of aggressiveness, self-consciousness, withdrawal, worries about physical development and concern over strong "crushes." At this time, also, conflicts with parents develop as the adolescent struggles for emancipation.

Pope (177,p.445) found that, in general, problems requiring educational guidance became of increasing concern to pupils as they advanced through school. In the ninth grade, only fourteen per cent of the problems listed by the students themselves concerned education, but by the twelfth grade, the percentage had increased to 59 per cent. This study also re-
vealed that problems of occupational adjustment likewise increased in importance as the students passed from the ninth to the twelfth grade.

On the one hand, Pope found that problems in connection with home and family were fewer in grade twelve than those in grade nine. On the other hand, another study (192) found no significant difference in adjustment to the home at these two grade levels.

The age of onset of delinquent tendencies may be quite early according to a study by Wilson (247, p. 588). He claims that a considerable portion of problem children can be picked out by ratings, questionnaires and interviews even in the lower public school grades. Cole (54, p. 269), in a study of the history of one thousand juvenile offenders, found that approximately 80 per cent of these cases gave evidence of delinquent behaviour in the age span from seven to twelve years. Apparently the onset of delinquent maladjustment often begins prior to grade nine.

Two very interesting conclusions to this section, though not in complete agreement, are presented by Cole (54, p. 321) and Schreiber. Schreiber in his article entitled "Measurement of Growth of Adjustment after Four Years in High School" (192, p. 210-219) found that students made lower scores on an adjustment questionnaire in 1941 than in 1937 after four years in high school. The author summarizes his findings:
"As a general over-all view of the results of the study it may be said that the better students began high school better adjusted than the poorer students. But the better students after four years in high school were not as well adjusted as when they entered. The poorer students did not start high school very well adjusted, and at the end of the four years their adjustment situation did not change in any way to any appreciable degree, but appeared to be static. Perhaps the better students were more critical of their environment."

Cole (54, pp. 321-2) summarizes her conclusions as to the permanence of traits of personality in these words:

"As more and more research is done it seems clear that not only differences in intellectual capacities remain fairly stable during the school years, but also differences in emotional and social adjustment. The overt behavior, of course, alters, but the underlying attitudes seem to become fixed very early in life. As one psychiatrist has said, unusual individuals merely get to be more and more like themselves as they grow older."

To emphasize her point, Cole goes on to say:

"During childhood the traits shown at entrance to school develop as regards expression, but they remain relatively stable as regards fundamental attitudes. With the coming of adolescence there is likely to be a change, often for the worse. Both acceptable and unacceptable traits are emphasized by these new demands of existence. Difficulties of adjustment are usually brought into high relief during adolescence."

One thing is clear from this study of the age of onset of specific forms of maladjustment. Although some traits and attitudes appear to remain fairly constant throughout childhood, adolescence brings to the fore many new or newly-emphasized adjustments that must be made by the individual.
CHAPTER III
THE INVESTIGATION

Having reviewed the literature relative to the problem of pupil adjustment at different grade levels, it is now necessary to outline the present study of personality adjustment of students in grades eight, ten and twelve.

The Measuring Instrument

Before describing the California Test of Personality, several reasons for using it will be suggested. In the first place, it has a fairly simple marking system, and requires only a short time to score.

In the second place, this test claims to measure components which are likely to be understood and noted by the average teacher. The two main divisions of the test deal with the student's adjustment to himself and to society. The teacher can observe the scores of each student in the areas of personal adjustment - his self-reliance, his sense of personal worth, his sense of personal freedom, his feeling of belonging, his freedom from withdrawing tendencies and from nervous symptoms. The other major component, social adjustment, attempts to describe for the teacher the individual's adjustment in social standards and skills, his adjustment to his family, his school and community, and his freedom from anti-social tendencies. After careful
study of these components, the test appeared more suitable than ever for the problem at hand since, if reliable and valid, its results would provide valuable data in many areas of personality and would allow a better and more detailed comparison of the three grade levels.

Another reason for selecting this test was that it gives measures of adjustment to home and to school, thus eliminating the need for two tests.

A further advantage is that the California Test of Personality is available in an intermediate series for grades eight and ten, and in a senior series for grade twelve. This permits a study of pupil adjustment over a wide grade range in the same areas of personality.

The Manual of Directions describes the test and its administration, and also gives remedial suggestions for maladjustment in the various components measured.

Finally, according to the Manual of Directions, the reliability is high. The reliability which was determined by the split-halves method corrected by the Spearman-Brown formula is reported to be .932 for the total scores, .898 for the self adjustment scores, and .873 for social adjustment. The correlation between the social and personal sections, .74, is sufficiently low to emphasize the desirability of studying the student from the standpoint of both self and social adjustment.
The Testing Program

It was decided to test students in grades eight, ten and twelve in order to compare their adjustment scores. It was expected that grade-level differences would be more apparent than if comparisons were made between pupils in successive grades.

The Schools Tested

Through the cooperation of the Principal and the Counsellors of Kitsilano High School, Vancouver, B. C., it was possible to use the test in their high school. All students in the three grades were tested. The numbers of pupils by grade and sex who completed the test are shown in Table II.

<table>
<thead>
<tr>
<th></th>
<th>Grade VIII</th>
<th>Grade X</th>
<th>Grade XII</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>172</td>
<td>126</td>
<td>74</td>
<td>372</td>
</tr>
<tr>
<td>Girls</td>
<td>155</td>
<td>125</td>
<td>68</td>
<td>348</td>
</tr>
<tr>
<td>Total</td>
<td>327</td>
<td>251</td>
<td>142</td>
<td>720</td>
</tr>
</tbody>
</table>
Comparison of This Sampling With the City as a Whole

An attempt was made to determine whether the students tested were representative of high school students in general. The Director of the Bureau of Tests and Measurements assured the writer that the school tested was a fair sampling of the high school students of the city as a whole since it enrolled students from a cross-section of most economic levels in Vancouver.

It was also assumed that the students were representative in academic ability. The median intelligence quotients of the grade levels tested were compared with the median intelligence quotients of Vancouver students at similar grade levels. The latter scores were supplied by the Bureau of Tests and Measurements of the Vancouver School Board. Table III shows the median I.Q.'s of the students tested and of all Vancouver students in the same grades.

TABLE III
MEDIAN INTELLIGENCE QUOTIENTS OF STUDENTS IN KITSILANO AND IN ALL VANCOUVER SCHOOLS

<table>
<thead>
<tr>
<th>Grade</th>
<th>Median I.Q.'s for Kitsilano</th>
<th>Median for City</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>XII</td>
<td>109.3</td>
<td>113.9</td>
</tr>
<tr>
<td>X</td>
<td>108.5</td>
<td>109.9</td>
</tr>
<tr>
<td>VIII</td>
<td>107.3</td>
<td>110.8</td>
</tr>
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</table>
From Table III it will be seen that the median for grade twelve of Kitsilano was somewhat lower, and the median for grade eight somewhat higher than the medians for corresponding grades in all Vancouver schools. Various intelligence tests had been used in the testing programs, and some students had had as many as four tests, others only one. All available results were used to determine the median for the city. The writer was unable to find any single intelligence test that had been common to all students of Kitsilano. The average of the several I.Q.'s listed for an individual student was used as the best index of his intelligence. In other cases, where one score was that recorded on entering elementary school and the other at high school age, the later of the two I.Q.'s was used. For these reasons, it is difficult to evaluate the significance of the differences reported in Table III.

The writer gave the California Test of Personality to twenty-two classes in all - ten grade-eight classes, eight grade-ten classes and four groups of grade-twelve students. Since the writer had not previously had any experience with the students, he felt that a little more explanation than the simple command of the Manual of Directions to "Open the booklet" was needed to establish rapport and to ensure maximum effort and honesty. After the home-room teacher had introduced the writer to the class, the following explanation
was made before beginning the test:

"This is not an examination or a test. It is merely a study by myself to find out how students feel and think about a great many things. Be absolutely frank and honest in answering these questions. Your answers will be seen only by myself and not by your teachers."

If the students asked whether they could find out their results, they were told that if they asked their counsellor, he or she would be able to give them the information on the front page, but that no counsellor would have seen the individual answers to the questions.

Since the class period was approximately forty-five minutes in length, it was found that there was sufficient time for the students to finish the test. In only two cases was it necessary to allow extra time. In all, 720 tests were completed, scored and checked thoroughly for scoring errors.

Comparison of Test Results with Ratings of Teachers and Counsellors

An attempt was made to determine the validity of the test by comparing the test scores with the opinions of the home-room teachers and counsellors.

Each home-room teacher was given a letter consisting of three pages. The first page contained an explanation of the purpose of the questionnaire. The second sheet was ruled and typed as a blank on which the teacher was asked to list those students of his class whom he considered to

1 See Appendix IA
be very well adjusted and then those he judged to be poorly adjusted. The third page was not to be read until the second one was completed. To safeguard this requirement, the third page was folded in two and pinned before being attached to the other sheets. On this third page were the names of the students of that class who had ranked below the fifteenth percentile in total adjustment or the lower decile in one or more component. In the next column the test finding was given for each name listed. Beside the test score, the teacher was asked to state whether or not he agreed with this finding and, if so, to indicate his opinion of the causes of this maladjustment.

The counsellors were also given a questionnaire. They were asked to list names of students whom they knew to be poorly or well adjusted. The use of the word "know" was unfortunate. Each counsellor in communications with the writer said that he was hesitant to state that he "knew" of the personality adjustment of a student when in reality he was only giving his opinion.

The results of the completed questionnaires from both the home-room teachers and the counsellors were used to compute the Contingency Coefficient applying Yates' correction. Since the teachers had merely been asked to name well adjusted and poorly adjusted students, the

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1 See Appendix IB
remainder of the students were labelled as average in calculating the index values. The upper twenty per cent of the test scores were considered as superior, the lower twenty per cent as inferior and the central sixty per cent as average.

Table IV shows the contingency coefficients between teachers' and counsellors' opinions and test results. In each case, correction was made for the small number of cases.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Sex</th>
<th>Cases</th>
<th>Teachers' Contingency Coefficient</th>
<th>Cases</th>
<th>Counsellors' Contingency Coefficient</th>
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</thead>
<tbody>
<tr>
<td>XII</td>
<td>Girls</td>
<td>60</td>
<td>.33</td>
<td>68</td>
<td>.21</td>
</tr>
<tr>
<td>XII</td>
<td>Boys</td>
<td>70</td>
<td>.26</td>
<td>74</td>
<td>.17</td>
</tr>
<tr>
<td>X</td>
<td>Girls</td>
<td>92</td>
<td>.29</td>
<td>125</td>
<td>.16</td>
</tr>
<tr>
<td>X</td>
<td>Boys</td>
<td>85</td>
<td>.42</td>
<td>126</td>
<td>.28</td>
</tr>
<tr>
<td>VIII</td>
<td>Girls</td>
<td>121</td>
<td>.38</td>
<td>--</td>
<td>Counsellor absent</td>
</tr>
<tr>
<td>VIII</td>
<td>Boys</td>
<td>144</td>
<td>.24</td>
<td>--</td>
<td>Counsellor absent</td>
</tr>
</tbody>
</table>

In each grade level, the questionnaire for one of the classes of Kitsilano High School was not completed by the home-room teacher so that the number of cases is smaller in each instance in Table IV than the total number tested.
The unfortunate wording of the questionnaire for the counsellors\(^1\) probably accounts for the fact that Table IV shows each C to be less for counsellors than for teachers. The coefficients, ranging from .16 to .42, are not indicative of high correlation between teachers' or counsellors' opinions and the test results.

The returns of the third page of the teachers' questionnaire\(^2\) were investigated. Of the 223 cases on which teachers gave their opinion, the teachers definitely agreed with the test findings in 116 cases, were undecided or did not know in 56 cases, and in only 51 were they of the opposite opinion. Twenty-seven of the 51 students ranked low in total score, while the remaining 24 students ranked below the lower decile in one or more component. Thus when the attention of the teacher was called to a student in regard to specific areas of maladjustment, the teachers agreed with test findings in 52 per cent of cases, did not know in 25 per cent and disagreed in 23 per cent.

The literature disclosed that in general teachers' opinions had little correlation with personality test results.\(^3\) From this study, it is believed that the coefficients shown in Table IV indicate as much validity for the California Test of Personality as has been found for personality questionnaires and rating devices when the test scores are validated by comparing with teachers' and counsellors' opinions.

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1. See Appendix IB
2. See Appendix IA
3. See chapter II, pages 7-10
CHAPTER IV
PRESENTATION OF TEST DATA

Comparison of the Sexes Within Each Grade

Before making a comparison of student personality adjustment in high school, the writer studied the role of sex to determine whether the girls and boys could be treated as a single group at each grade level. The writer compared the scores of the boys with those of the girls within each grade tested - eight, ten and twelve. Table V shows the comparison of the sexes in grade eight.
TABLE V.
SEX DIFFERENCES IN TEST COMPONENTS IN GRADE VIII

<table>
<thead>
<tr>
<th>Factor</th>
<th>Boys</th>
<th>Girls</th>
<th>Diff. in Means</th>
<th>SD</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.37</td>
<td>9.53</td>
<td>.84</td>
<td>.28</td>
<td>2.98</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.76</td>
<td>11.13</td>
<td>-.37</td>
<td>.30</td>
<td>-1.2</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.52</td>
<td>12.69</td>
<td>-1.17</td>
<td>.28</td>
<td>-.50</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.95</td>
<td>12.29</td>
<td>.63</td>
<td>.31</td>
<td>2.07</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.79</td>
<td>10.60</td>
<td>.19</td>
<td>.31</td>
<td>.61</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>12.00</td>
<td>11.12</td>
<td>.88</td>
<td>.29</td>
<td>3.05</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.20</td>
<td>13.53</td>
<td>-.33</td>
<td>.20</td>
<td>-1.65</td>
</tr>
<tr>
<td>Social Skills</td>
<td>10.64</td>
<td>11.54</td>
<td>-1.90</td>
<td>.31</td>
<td>-2.95</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>10.10</td>
<td>11.43</td>
<td>-1.33</td>
<td>.32</td>
<td>-4.20</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.52</td>
<td>11.98</td>
<td>.54</td>
<td>.33</td>
<td>1.64</td>
</tr>
<tr>
<td>School Relations</td>
<td>10.58</td>
<td>10.69</td>
<td>-.11</td>
<td>.30</td>
<td>-1.37</td>
</tr>
<tr>
<td>Community Relations</td>
<td>11.90</td>
<td>12.56</td>
<td>-.66</td>
<td>.29</td>
<td>-2.26</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>132.90</td>
<td>133.90</td>
<td>-1.0</td>
<td>2.25</td>
<td>-4.0</td>
</tr>
</tbody>
</table>
The data of Table V indicate that there are very few sex differences in grade eight. Boys tend to have higher scores in freedom from nervous symptoms and in self-reliance. Girls score higher in freedom from anti-social tendencies and social skills.

With these exceptions, therefore, the grade-eight class can be treated as a single group. Table VI shows the scores made by boys and girls in grade ten.
TABLE VI
SEX DIFFERENCES IN TEST COMPONENTS IN GRADE X

<table>
<thead>
<tr>
<th>Factor</th>
<th>Boys</th>
<th>S.D.</th>
<th>Girls</th>
<th>S.D.</th>
<th>Diff.in Means</th>
<th>$\delta_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF ADJUSTMENT</td>
<td>69.92</td>
<td>11.74</td>
<td>70.28</td>
<td>9.51</td>
<td>-.36</td>
<td>1.35</td>
<td>-.27</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.86</td>
<td>2.33</td>
<td>10.30</td>
<td>2.17</td>
<td>.56</td>
<td>.28</td>
<td>2.00</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.52</td>
<td>2.46</td>
<td>12.54</td>
<td>2.06</td>
<td>-2.02</td>
<td>.29</td>
<td>-7.06</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>13.56</td>
<td>2.23</td>
<td>13.18</td>
<td>2.49</td>
<td>.38</td>
<td>.30</td>
<td>1.26</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.48</td>
<td>2.91</td>
<td>13.35</td>
<td>2.10</td>
<td>-.87</td>
<td>.32</td>
<td>-2.72</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>12.24</td>
<td>2.54</td>
<td>11.74</td>
<td>2.49</td>
<td>.50</td>
<td>.32</td>
<td>1.58</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>12.23</td>
<td>2.57</td>
<td>11.53</td>
<td>2.33</td>
<td>.70</td>
<td>.31</td>
<td>2.26</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>68.81</td>
<td>10.53</td>
<td>71.88</td>
<td>9.83</td>
<td>-3.07</td>
<td>1.29</td>
<td>-2.39</td>
</tr>
<tr>
<td>Social Standards</td>
<td>12.81</td>
<td>2.20</td>
<td>13.86</td>
<td>1.55</td>
<td>-1.05</td>
<td>.24</td>
<td>-5.60</td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.02</td>
<td>2.54</td>
<td>11.81</td>
<td>2.00</td>
<td>-.79</td>
<td>.29</td>
<td>-2.84</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>11.32</td>
<td>2.84</td>
<td>12.12</td>
<td>2.46</td>
<td>-.80</td>
<td>.34</td>
<td>-2.39</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.75</td>
<td>2.84</td>
<td>12.06</td>
<td>3.25</td>
<td>.69</td>
<td>.39</td>
<td>1.79</td>
</tr>
<tr>
<td>School Relations</td>
<td>11.29</td>
<td>2.53</td>
<td>11.37</td>
<td>2.36</td>
<td>-.08</td>
<td>.31</td>
<td>-.26</td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.03</td>
<td>2.78</td>
<td>12.46</td>
<td>2.47</td>
<td>-.43</td>
<td>.33</td>
<td>-1.30</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>138.25</td>
<td>19.63</td>
<td>141.08</td>
<td>17.3</td>
<td>-2.83</td>
<td>2.34</td>
<td>-1.21</td>
</tr>
</tbody>
</table>
It may be seen from Table VI that only two differences are significant. Girls tend to have better adjustment in sense of personal worth, social standards, social skills and feeling of belonging. Several other critical ratios are between 2.00 and 2.50.

Sex differences in grade twelve are shown in Table VII.
### TABLE VII

**SEX DIFFERENCES IN TEST COMPONENTS IN GRADE XII**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Boys</th>
<th>Girls</th>
<th>Diff. in Means</th>
<th>$\sigma_D$</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SELF ADJUSTMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.73</td>
<td>10.76</td>
<td>-0.03</td>
<td>0.38</td>
<td>-0.08</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>12.40</td>
<td>13.15</td>
<td>-0.75</td>
<td>0.35</td>
<td>-2.15</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>13.38</td>
<td>13.29</td>
<td>0.09</td>
<td>0.34</td>
<td>0.26</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>13.34</td>
<td>13.50</td>
<td>-0.16</td>
<td>0.32</td>
<td>-0.50</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>11.38</td>
<td>12.26</td>
<td>-0.88</td>
<td>0.42</td>
<td>-2.09</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>10.60</td>
<td>11.32</td>
<td>-0.72</td>
<td>0.46</td>
<td>-1.57</td>
</tr>
<tr>
<td><strong>SOCIAL ADJUSTMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.41</td>
<td>14.47</td>
<td>-1.06</td>
<td>0.26</td>
<td>-4.04</td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.41</td>
<td>12.18</td>
<td>-0.77</td>
<td>0.37</td>
<td>-2.08</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>12.73</td>
<td>13.26</td>
<td>-0.53</td>
<td>0.31</td>
<td>-1.69</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.32</td>
<td>12.26</td>
<td>0.06</td>
<td>0.49</td>
<td>0.12</td>
</tr>
<tr>
<td>School Relations</td>
<td>12.43</td>
<td>12.12</td>
<td>0.31</td>
<td>0.31</td>
<td>1.00</td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.05</td>
<td>11.85</td>
<td>0.20</td>
<td>0.39</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>TOTAL ADJUSTMENT</strong></td>
<td>141.08</td>
<td>146.15</td>
<td>-5.07</td>
<td>2.64</td>
<td>-1.92</td>
</tr>
</tbody>
</table>
From Table VII, it is apparent that the sex differences are even smaller in grade twelve than in the other two grade levels. In only one component, social standards, is the grade twelve difference significant, girls having the higher scores.

Are boys different from girls in the three grades tested? The answer, broadly, is "No." In not one of the total or sub-total scores at any of the three grade levels is the difference noteworthy. In only five out of thirty-six component-comparisons are the values of the critical ratios over 3.00.

Comparison of the Personality Development of Boys and Girls Considered Separately

Before the differences in adjustment scores between the grade levels can be dealt with, the question of the rate of progress of each separate sex must be investigated. The personality changes of the boys and girls through their high school years can be seen readily from graphs of the profiles for each grade level. These profiles are plotted on charts similar to those supplied with the California Test of Personality, using the percentile norms of the manual of directions (53,p.16). The norms used for grades eight and ten are those supplied for the intermediate series of the test used, and for grade twelve, those of the senior series.
Graph I shows the profiles obtained for the girls at the three grade levels using the percentiles of the mean scores from Tables V, VI and VII. Graph II shows profiles computed in a similar manner for the boys.
Graph I

Comparison of the mean profiles of the girls at varying grade levels

Components

Self Adjustment
A. Self-reliance
B. Sense of personal worth
C. Sense of personal freedom
D. Feeling of belonging
E. Withdrawing Tendencies
F. Nervous Symptoms

Social Adjustment
A. Social Standards
B. Social Skills
C. Anti-social Tendencies
D. Family Relations
E. School Relations
F. Community Relations

Total Adjustment
### GRAPH II

**COMPARISON OF THE MEAN PROFILES OF THE BOYS AT VARYING GRADE LEVELS**

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>PERCENTILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Adjustment</td>
<td></td>
</tr>
<tr>
<td>A. Self-reliance</td>
<td></td>
</tr>
<tr>
<td>B. Sense of personal worth</td>
<td></td>
</tr>
<tr>
<td>C. Sense of personal freedom</td>
<td></td>
</tr>
<tr>
<td>D. Feeling of belonging</td>
<td></td>
</tr>
<tr>
<td>E. Withdrawing Tendencies</td>
<td></td>
</tr>
<tr>
<td>F. Nervous Symptoms</td>
<td></td>
</tr>
<tr>
<td>Social Adjustment</td>
<td></td>
</tr>
<tr>
<td>A. Social Standards</td>
<td></td>
</tr>
<tr>
<td>B. Social Skills</td>
<td></td>
</tr>
<tr>
<td>C. Anti-social Tendencies</td>
<td></td>
</tr>
<tr>
<td>D. Family Relations</td>
<td></td>
</tr>
<tr>
<td>E. School Relations</td>
<td></td>
</tr>
<tr>
<td>F. Community Relations</td>
<td></td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td></td>
</tr>
</tbody>
</table>
From Graph I it may be seen that, on the whole, girls' adjustment scores tend to improve from grade eight to grade twelve, with certain exceptions, namely:

(a) sense of personal freedom;
(b) total social adjustment;
(c) social skills;
(d) community relations.

A study of Graph II reveals that there is some tendency for mean percentiles of the boys to vary erratically from one grade to another. The variations are summarized briefly in the following chart:

<table>
<thead>
<tr>
<th>Steady Improvement</th>
<th>Little Change</th>
<th>Regressions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Self Adjustment</td>
<td>1) Social Adjustment</td>
<td>1) Sense of personal worth</td>
</tr>
<tr>
<td>2) Self-reliance</td>
<td>2) Nervous Symptoms</td>
<td>2) Sense of personal freedom</td>
</tr>
<tr>
<td>3) Anti-social Tendencies</td>
<td>3) Family Relations</td>
<td>3) Feeling of belonging</td>
</tr>
<tr>
<td>4) School Relations</td>
<td>4) Community Relations</td>
<td>4) Withdrawing tendencies</td>
</tr>
<tr>
<td>5) Total Adjustment</td>
<td></td>
<td>5) Social Standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6) Social Skills</td>
</tr>
</tbody>
</table>

The graphs make it apparent that the differences between the grade levels need to be studied to find which ones are significant. However, since the secondary series of the California Test of Personality was used in grade twelve, while the intermediate series was used in both grades eight and ten,
it is not possible to compare the raw scores of the different series. Therefore, for the comparisons of grades eight and twelve and grades ten and twelve, the raw scores were changed to percentile equivalents and the percentile differences studied. Only the differences between grades eight and ten are considered from the critical ratios of mean raw-score differences.

Table VIII shows the comparison of the grade-eight and grade-twelve girls using percentile values.
TABLE VIII
GRADE-LEVEL DIFFERENCES IN TEST COMPONENTS FOR GIRLS IN GRADES VIII AND XII

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores</th>
<th>Percentile Equivalents</th>
<th>Diff. in Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr.VIII</td>
<td>Gr.XII</td>
<td>Gr.VIII</td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>65.17</td>
<td>74.86</td>
<td>30</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>11.13</td>
<td>13.15</td>
<td>41</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.69</td>
<td>13.29</td>
<td>45</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.53</td>
<td>13.50</td>
<td>34</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.60</td>
<td>12.26</td>
<td>36</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>11.12</td>
<td>11.32</td>
<td>37</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.53</td>
<td>14.47</td>
<td>58</td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.54</td>
<td>12.18</td>
<td>58</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>11.43</td>
<td>13.26</td>
<td>44</td>
</tr>
<tr>
<td>Family Relations</td>
<td>11.98</td>
<td>12.26</td>
<td>40</td>
</tr>
<tr>
<td>School Relations</td>
<td>10.69</td>
<td>12.12</td>
<td>47</td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.56</td>
<td>11.85</td>
<td>56</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>133.90</td>
<td>146.15</td>
<td>35</td>
</tr>
</tbody>
</table>
Since the critical ratios were not determined for the differences between the percentile equivalents, the writer has arbitrarily considered a percentile difference of 10 or more to indicate a significant difference. As a basis for this choice, the writer compared the critical ratios of the mean raw scores of each test factor for the boys and girls of grades eight and ten (where the intermediate series was used for both grades) with the respective percentile difference for the same factor. In no instance did a percentile difference of less than 10 have a raw-score critical ratio as great as 2.99 (see Tables X, XI and XIV).

From Table VIII, it may be seen that there is a distinct tendency for grade-twelve girls to have higher scores than do those in grade eight, although the difference is very small in total social adjustment and social skills, and actually reversed in community relations.

A similar study of the percentile differences of the grade-eight and grade-twelve boys is shown in Table IX.
# TABLE IX
GRADE-LEVEL DIFFERENCES IN TEST COMPONENTS FOR
BOYS IN GRADES VIII AND XII

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores</th>
<th>Percentile Equivalents</th>
<th>Diff. in Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr. VIII</td>
<td>Gr. XII</td>
<td>Gr. VIII</td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td>67.21</td>
<td>72.16</td>
<td>35</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.37</td>
<td>10.73</td>
<td>52</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.76</td>
<td>12.40</td>
<td>38</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.52</td>
<td>13.38</td>
<td>43</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.95</td>
<td>13.34</td>
<td>44</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.79</td>
<td>11.38</td>
<td>38</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>12.00</td>
<td>10.60</td>
<td>50</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>66.45</td>
<td>69.32</td>
<td>30</td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.20</td>
<td>13.41</td>
<td>50</td>
</tr>
<tr>
<td>Social Skills</td>
<td>10.64</td>
<td>11.41</td>
<td>45</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>10.10</td>
<td>12.73</td>
<td>31</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.52</td>
<td>12.32</td>
<td>45</td>
</tr>
<tr>
<td>School Relations</td>
<td>10.58</td>
<td>12.43</td>
<td>46</td>
</tr>
<tr>
<td>Community Relations</td>
<td>11.90</td>
<td>12.05</td>
<td>49</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>132.90</td>
<td>141.08</td>
<td>30</td>
</tr>
</tbody>
</table>
Large differences between the scores of boys in grades eight and twelve are not as numerous as were found for the girls of these grades. Seven of the differences are indeed very small, being 5 or fewer percentile points. The categories having percentile differences of 10 or more may be determined by inspection of Table IX.

There appear to be numerous significant differences which indicate personality changes over the four-year period from grade eight to twelve. The study, therefore, proceeds to determine the differences when the span is only two years. Since the intermediate series of the test was used in both grades eight and ten, it is possible to compare the mean raw scores of these levels. The standard deviations and critical ratios are shown in Table X for the girls in these grades.
# TABLE X

GRADE-LEVEL DIFFERENCES IN TEST COMPONENTS FOR GIRLS IN
GRADES VIII AND X

<table>
<thead>
<tr>
<th>Factor</th>
<th>Gr.VIII Girls</th>
<th>Gr.X Girls</th>
<th>Diff. in Means</th>
<th>SD</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>65.17 10.86</td>
<td>70.28 9.51</td>
<td>5.11 1.22</td>
<td></td>
<td>4.19</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>9.53 2.60</td>
<td>10.30 2.17</td>
<td>7.77 .29</td>
<td>2.70</td>
<td></td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>11.13 2.79</td>
<td>12.54 2.06</td>
<td>1.41 .29</td>
<td>4.86</td>
<td></td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.29 2.94</td>
<td>13.35 2.10</td>
<td>1.06 .30</td>
<td>3.51</td>
<td></td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.60 2.79</td>
<td>11.74 2.49</td>
<td>1.14 .32</td>
<td>3.61</td>
<td></td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>11.12 2.64</td>
<td>11.53 2.33</td>
<td>.41 .30</td>
<td>1.38</td>
<td></td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>69.45 10.12</td>
<td>71.88 9.83</td>
<td>2.43 1.20</td>
<td>2.03</td>
<td></td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.53 1.69</td>
<td>13.86 1.55</td>
<td>.33 .19</td>
<td>1.70</td>
<td></td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.54 2.23</td>
<td>11.81 2.00</td>
<td>.27 .25</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>11.43 2.57</td>
<td>12.12 2.46</td>
<td>.69 .30</td>
<td>2.28</td>
<td></td>
</tr>
<tr>
<td>Family Relations</td>
<td>11.98 3.12</td>
<td>12.06 3.25</td>
<td>.08 .38</td>
<td>2.11</td>
<td></td>
</tr>
<tr>
<td>School Relations</td>
<td>10.69 2.67</td>
<td>11.37 2.36</td>
<td>.68 .30</td>
<td>2.27</td>
<td></td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.56 2.44</td>
<td>12.46 2.47</td>
<td>.10 .30</td>
<td>-.33</td>
<td></td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>133.90 19.87</td>
<td>141.08 17.30</td>
<td>7.18 2.22</td>
<td>3.23</td>
<td></td>
</tr>
</tbody>
</table>
Table X reveals that grade-ten girls tend to have higher adjustment scores than do grade-eight girls. Five of the differences are highly significant, being more than three times their standard errors. In four cases, the critical ratios exceed two. The remaining six differences are small, and all but one in favour of the girls in the higher grade.

The boys of grades eight and ten are compared next. Table XI shows their differences in test components.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Gr. VIII Boys</th>
<th></th>
<th>Gr. X Boys</th>
<th></th>
<th>Diff. in Means</th>
<th>σ_D</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td>67.21</td>
<td>12.34</td>
<td>69.92</td>
<td>11.74</td>
<td>2.71</td>
<td>1.41</td>
<td>1.92</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.37</td>
<td>2.51</td>
<td>10.86</td>
<td>2.33</td>
<td>.49</td>
<td>.28</td>
<td>1.74</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.76</td>
<td>2.69</td>
<td>10.52</td>
<td>2.46</td>
<td>-.24</td>
<td>.30</td>
<td>-.80</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.52</td>
<td>2.65</td>
<td>13.56</td>
<td>2.23</td>
<td>1.04</td>
<td>.28</td>
<td>3.67</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.95</td>
<td>2.53</td>
<td>12.48</td>
<td>2.91</td>
<td>-.47</td>
<td>.32</td>
<td>-1.46</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.79</td>
<td>2.85</td>
<td>12.24</td>
<td>2.54</td>
<td>1.45</td>
<td>.31</td>
<td>4.62</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>12.00</td>
<td>2.56</td>
<td>12.23</td>
<td>2.57</td>
<td>.23</td>
<td>.30</td>
<td>.76</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>66.45</td>
<td>11.44</td>
<td>68.81</td>
<td>10.53</td>
<td>2.36</td>
<td>1.28</td>
<td>1.84</td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.20</td>
<td>1.94</td>
<td>12.81</td>
<td>2.20</td>
<td>-.39</td>
<td>.25</td>
<td>-1.59</td>
</tr>
<tr>
<td>Social Skills</td>
<td>10.64</td>
<td>3.25</td>
<td>11.02</td>
<td>2.54</td>
<td>.38</td>
<td>.34</td>
<td>1.12</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>10.10</td>
<td>3.15</td>
<td>11.32</td>
<td>2.84</td>
<td>1.22</td>
<td>.25</td>
<td>4.82</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.52</td>
<td>2.88</td>
<td>12.75</td>
<td>2.84</td>
<td>.23</td>
<td>.34</td>
<td>.69</td>
</tr>
<tr>
<td>School Relations</td>
<td>10.58</td>
<td>2.79</td>
<td>11.29</td>
<td>2.53</td>
<td>.71</td>
<td>.31</td>
<td>2.29</td>
</tr>
<tr>
<td>Community Relations</td>
<td>11.90</td>
<td>2.84</td>
<td>12.03</td>
<td>2.78</td>
<td>.13</td>
<td>.33</td>
<td>.39</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>132.90</td>
<td>20.71</td>
<td>138.25</td>
<td>19.63</td>
<td>5.35</td>
<td>2.36</td>
<td>2.27</td>
</tr>
</tbody>
</table>
When the differences between the girls' scores in grades eight and ten are compared with the differences between the boys' scores of the same grades, considerable variation is found. In only one component is the difference both similar and significant for each sex, namely, freedom from withdrawing tendencies. In the case of the boys, only three differences are significant, and only two other differences exceed twice their standard errors. All the remaining ten differences are small and three of them are in favour of the grade-eight boys.

There remains a comparison of the girls of grades ten and twelve, and of the boys of these same grades. The girls are compared in Table XII.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores</th>
<th>Percentile Equivalents</th>
<th>Diff. in Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade X</td>
<td>Gr. XII</td>
<td>Gr. X</td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>70.28</td>
<td>74.86</td>
<td>41</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.30</td>
<td>10.76</td>
<td>51</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.54</td>
<td>13.15</td>
<td>61</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>13.18</td>
<td>13.29</td>
<td>54</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>13.35</td>
<td>13.50</td>
<td>52</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>11.74</td>
<td>12.26</td>
<td>47</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Standards</td>
<td>11.81</td>
<td>12.18</td>
<td>62</td>
</tr>
<tr>
<td>Social Skills</td>
<td>12.12</td>
<td>13.26</td>
<td>52</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>12.06</td>
<td>12.26</td>
<td>41</td>
</tr>
<tr>
<td>Family Relations</td>
<td>11.37</td>
<td>12.12</td>
<td>54</td>
</tr>
<tr>
<td>School Relations</td>
<td>12.46</td>
<td>11.85</td>
<td>55</td>
</tr>
<tr>
<td>Community Relations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>141.08</td>
<td>146.15</td>
<td>45</td>
</tr>
</tbody>
</table>
The data of Table XII reveal that no consistent increase in test scores is made by girls in grade twelve over grade ten. Only six differences exceed nine percentile points. Five differences are small but in favour of the grade-twelve girls, while four small differences indicate superior adjustment among grade-ten girls.

A similar comparison of the boys at these two grade levels is made. Table XIII shows their mean scores, percentile equivalents and differences between percentiles in the test components.
TABLE XIII
GRADE-LEVEL DIFFERENCES IN TEST COMPONENTS FOR BOYS IN GRADES X AND XII

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores</th>
<th>Percentile Equivalents</th>
<th>Diff. in Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr. X</td>
<td>Gr. XII</td>
<td>Gr. X</td>
<td>Gr. XII</td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td>69.92</td>
<td>77.16</td>
<td>90</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.86</td>
<td>10.73</td>
<td>62</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.52</td>
<td>12.40</td>
<td>35</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>13.56</td>
<td>13.38</td>
<td>61</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.48</td>
<td>13.34</td>
<td>37</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>12.24</td>
<td>11.38</td>
<td>54</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>12.23</td>
<td>10.60</td>
<td>53</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>68.81</td>
<td>67.32</td>
<td>35</td>
</tr>
<tr>
<td>Social Standards</td>
<td>12.81</td>
<td>13.41</td>
<td>42</td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.02</td>
<td>11.41</td>
<td>50</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>11.32</td>
<td>12.73</td>
<td>43</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.75</td>
<td>12.32</td>
<td>48</td>
</tr>
<tr>
<td>School Relations</td>
<td>11.29</td>
<td>12.43</td>
<td>53</td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.03</td>
<td>12.05</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>138.25</td>
<td>141.08</td>
<td>40</td>
</tr>
</tbody>
</table>
From Table XIII, it may be seen that the increases in test scores of the boys are more inconsistent than those of the girls. Compared with grade-ten boys, the senior boys have six significantly higher percentile equivalents, four slightly higher, and one equal — that of social adjustment. Three small differences are in favour of the grade-ten boys, while in freedom from withdrawing tendencies the difference is 13 percentile points higher for grade-ten boys.

A summary of the results of Tables VIII to XIII is given in Table XIV.
TABLE XIV
PERCENTILE DIFFERENCES FOR THE GRADE-LEVEL COMPARISONS
FOR EACH SEX

<table>
<thead>
<tr>
<th>Component</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr. XII &amp; VIII</td>
<td>Gr. X &amp; VIII</td>
</tr>
<tr>
<td>SELF ADJUSTMENT</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>18</td>
<td>-3</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>10</td>
<td>-7</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Social Standards</td>
<td>5</td>
<td>-8</td>
</tr>
<tr>
<td>Social Skills</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>Family Relations</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>School Relations</td>
<td>20</td>
<td>7</td>
</tr>
<tr>
<td>Community Relations</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>
Certain points are worth noting:

(1) For both sexes, total adjustment and self-adjustment scores tend to be higher in the later grades;

(2) Higher scores in the later grades tend to occur in self-reliance, personal worth, feeling of belonging, anti-social tendencies and school relations;

(3) There is little change in social adjustment scores;

(4) Rather minor changes tend to occur in social skills, family relations and community relations;

(5) Irregular development is found in personal freedom, withdrawing tendencies and social standards;

(6) Scores of the girls tend to increase and those of the boys to remain stationary in nervous symptoms;

(7) The only significant negative difference occurs between the boys of grades twelve and ten in withdrawing tendencies.

Evidences of Grade-Level Differences in Personality Components

This study now presents the evidence of differences between the grade levels when the sexes are combined. To get a general picture of personality development from grade to grade according to the measurement of the California Test of Personality, the mean profiles for the three levels are plotted in Graph III, using the appropriate percentile norms for each grade.
GRAPH III
COMPARISON OF THE MEAN PROFILES OF THE GRADE LEVELS

COMPONENTS

Self Adjustment
A. Self-reliance
B. Sense of personal worth
C. Sense of personal freedom
D. Feeling of belonging
E. Withdrawing Tendencies
F. Nervous Symptoms

Social Adjustment
A. Social Standards
B. Social Skills
C. Anti-social Tendencies
D. Family Relations
E. School Relations
F. Community Relations

TOTAL ADJUSTMENT
In general, it can be seen from Graph III that grade eight is not as well adjusted as grade ten and that grade ten ranks lower than grade twelve in most components of the California Test of Personality. There appear to be some grade differences between the personality components in the various grades, hence comparisons are made between the three levels.

Table XV shows the means, percentile equivalents and percentile differences for grades eight and twelve.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores (Gr. VIII)</th>
<th>Mean Scores (Gr. XII)</th>
<th>Percentile Equivalents (Gr. VIII)</th>
<th>Percentile Equivalents (Gr. XII)</th>
<th>Diff. in Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF ADJUSTMENT</td>
<td>66.25</td>
<td>70.56</td>
<td>31</td>
<td>48</td>
<td>17</td>
</tr>
<tr>
<td>Self-Reliance</td>
<td>10.00</td>
<td>10.75</td>
<td>45</td>
<td>68</td>
<td>23</td>
</tr>
<tr>
<td>Personal Worth</td>
<td>10.94</td>
<td>12.76</td>
<td>39</td>
<td>61</td>
<td>22</td>
</tr>
<tr>
<td>Personal Freedom</td>
<td>12.60</td>
<td>13.34</td>
<td>44</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>Feeling of Belonging</td>
<td>12.64</td>
<td>13.42</td>
<td>40</td>
<td>56</td>
<td>16</td>
</tr>
<tr>
<td>Withdrawing Tendencies</td>
<td>10.70</td>
<td>11.80</td>
<td>37</td>
<td>47</td>
<td>10</td>
</tr>
<tr>
<td>Nervous Symptoms</td>
<td>11.58</td>
<td>10.94</td>
<td>44</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>SOCIAL ADJUSTMENT</td>
<td>67.87</td>
<td>73.17</td>
<td>34</td>
<td>46</td>
<td>12</td>
</tr>
<tr>
<td>Social Standards</td>
<td>13.35</td>
<td>13.92</td>
<td>54</td>
<td>68</td>
<td>14</td>
</tr>
<tr>
<td>Social Skills</td>
<td>11.07</td>
<td>11.78</td>
<td>51</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Anti-social Tendencies</td>
<td>10.87</td>
<td>12.99</td>
<td>39</td>
<td>70</td>
<td>31</td>
</tr>
<tr>
<td>Family Relations</td>
<td>12.27</td>
<td>12.30</td>
<td>43</td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td>School Relations</td>
<td>10.63</td>
<td>12.28</td>
<td>46</td>
<td>64</td>
<td>18</td>
</tr>
<tr>
<td>Community Relations</td>
<td>12.21</td>
<td>12.24</td>
<td>52</td>
<td>55</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>133.44</td>
<td>143.52</td>
<td>32</td>
<td>48</td>
<td>16</td>
</tr>
</tbody>
</table>
A study of the table reveals that the differences between grade-eight and grade-twelve percentile scores tend to be fairly large. In only three instances—social skills, family relations, and community relations—are the differences less than ten percentile points.

Table XVI compares the scores made by pupils in grades eight and ten.
### TABLE XVI
GRADE DIFFERENCES IN TEST COMPONENTS FOR GRADES VIII AND X

<table>
<thead>
<tr>
<th>Factor</th>
<th>Grade VIII</th>
<th>Grade X</th>
<th>Diff. in Means</th>
<th>SD</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SELF ADJUSTMENT</strong></td>
<td></td>
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(99)
Only five differences are less than twice their corresponding standard errors, indicating that grade-ten pupils tend to have better adjustment scores than do grade-eight pupils. These five components include feeling of belonging, nervous symptoms, social standards, family relations and community relations. All the differences, except one very small one, are in favour of the pupils in grade ten.

Table XVII compares the percentile equivalents of pupils in grades ten and twelve.
<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean Scores</th>
<th>Percentile Equivalents</th>
<th>Diff. in Percentiles</th>
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<td>Gr. XII</td>
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<td>11.78</td>
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<td>12.24</td>
<td>56</td>
</tr>
<tr>
<td>TOTAL ADJUSTMENT</td>
<td>139.75</td>
<td>143.52</td>
<td>40</td>
</tr>
</tbody>
</table>
It is apparent from Table XVII, that changes in scores from grades ten to twelve are smaller and more erratic than was the case in the comparison of grades eight and ten. Six percentile differences exceed ten points in favour of grade twelve, while four of the small differences favour the lower grade.

**Statement of Areas of Personality Requiring Attention of Teachers and Counsellors**

(1) From a study of the test data, it becomes apparent that some areas of personality require the attention of teachers and counsellors. Before specific areas should be singled out for attention, it must be admitted that a percentage of students at each grade level had such low scores in every area of personality that, if the test results are valid, these students require expert guidance and help to correct their maladjustments.

(2) From the investigation of sex differences within the grades, it is found that, in general, boys and girls are not significantly different in personality adjustment and that they can be treated as one group within each grade in the guidance program. The specific exceptions to this generalization are in the areas of nervous symptoms, self-reliance, social skills and freedom from anti-social tendencies in grade eight; in sense of personal worth and social standards in grade ten; and in social standards in grade twelve.

(3) When all students in each grade level are compared, it becomes evident, as it does for each separate sex, that
the test scores reveal a gradual increase from grade eight to ten and from ten to twelve in total adjustment and in total self-adjustment scores, as well as in three components – self-reliance, anti-social tendencies and school relations. Since other studies do not agree with this finding, teachers and counsellors should be aware of the evidence of personality development indicated in this study.

(4) In all comparisons of the components of social skills and family and community relations, as well as of total social adjustment, no significant or even marked differences are found. Cognizance of this lack of gain should be taken by those directing the guidance program of the school.

(5) From this study of the rates of personality development of the boys and girls as measured by the California Test of Personality, teachers and counsellors should note that girls tend to develop more evenly than the boys, especially in the area of self adjustment and its six components. The scores of the boys seem to fluctuate more.

(6) The boys show irregular development in five components. In personal worth, feeling of belonging and social standards, their scores are slightly lower in grade ten than in grade eight; then the scores increase markedly at the grade-twelve level. It would appear that the guidance program should give special help to the grade-ten boys in these three areas of personality. On the other hand, special help for the grade-twelve boys would appear to be justified in sense of personal

1. See reference numbers: 192, 166.
freedom and in withdrawing tendencies where the scores drop back from decided gains in grade ten to a minor and a major loss respectively in grade twelve. Finally, the boys show no increase in their scores in the component of nervous symptoms. To ensure a gain in these scores, special attention should be given to their problems in this area.

(7) In only one of the six components just mentioned for the boys, do the girls show irregular increases. In this component of sense of personal freedom, the test data indicate that grade-twelve girls need special counselling.
CHAPTER V

RECOMMENDATIONS FOR GUIDANCE WORK

Review of Suggestions Found in Literature

The literature reviewed for this study contained many recommendations for guidance work. Some of these suggestions are directly applicable to those areas of personality which, according to the test data, needed the attention of teachers and counsellors. Other suggestions can only be applied indirectly. No specific instructions were found to vary guidance according to grade level or according to sex differences of high school students. However, the literature does contain many helpful suggestions for maladjusted students.

Recommendations for Students with Low Test Scores

In each grade level, a percentage of the students have very low scores. If the test is a valid indicator of personality adjustment, such students would require special help and guidance to correct their maladjustments. Studies of the effect of remedial work on maladjusted personalities reveal favourable results from guidance work with problem students.

Blau and Veo (32) carried out an experimental project in which the group approach, supplemented by a child-guidance clinic, was used to help problem children. The maladjusted pupils were divided into groups according to their individual needs. Each counsellor tried by discussion and remedial work to correct the particular maladjustment of his group. Such
"group treatment" brought about marked improvement in attitudes and adjustment, and many of the pupils were returned to regular classes.

Berman and Klein (26) reported a project with superior students who were failing in various subjects. While professional assistance was found to be necessary for some of the children, most of the pupils were helped by the simple process of focusing the home-room teacher's attention on the nature of the child's maladjustment, and by urging the teacher to try to help the child in the ordinary classroom procedures.

Jersild (115, pp. 571ff) investigated the response of children to clinical treatment by mental hygienists. He found that success or failure depended upon a tremendous complexity of factors. He reports a study of 100 cases selected at random from 700 children treated at three varying age levels. In the case of children under 12 years of age, it was judged that 15 per cent were successfully adjusted, 26 partially, 27 unadjusted and 32 undetermined (where the result of the treatment could not be measured, or where the permanency of the improvement was still in doubt). In the age range from 12 to 20 years, 10 per cent were judged to be successfully adjusted, 28 partially, 20 unimproved and 42 undetermined. The corresponding percentages for persons aged 21 and over were 7, 28, 24 and 41 per cent. Jersild concluded that "while the studies show that a relatively large proportion of children are helped, they also indicate
that many children who receive treatment over varying periods of time do not seem to show significant improvement."

Tiegs and Katz (225, p. 174) claim that "evidence so far available indicates that intelligently directed efforts can do much to aid children who are experiencing difficulty."

Since guidance has been shown to help many students, a guidance program is needed in any school system to give special assistance to problem students. Such a program must be based on sound principles of guidance. The literature outlined numerous fundamentals to be kept in mind by those directing the guidance program:

(1) Guidance is the function of the whole staff (173), (165).

(2) Guidance is a gradual, long-time process extending from the home and the elementary school to high-school graduation and even beyond (213).

(3) Prevention of maladjustment is a very important function of guidance work (225, p. 174).

(4) Treatment should be started early. The best area for remedial work is in the public school before the student becomes too firmly established in habits of inadequate personality adjustment (217). The White House Conference (238, p. 40) stresses the fact that nothing fails like failure. They point out that often no special study is made of a child until he is two years behind in his studies and is
thus well grounded in habits of failure.

(5) To ensure continuity of guidance, a joint committee of the elementary and secondary schools is needed (74).

(6) Adequate time allotment should be provided. It is estimated that an equivalent of one full-time counsellor for every 500 students is required (97, p. 64).

(7) Good cumulative record cards for each student should be kept to provide a more complete understanding of the pupil and his problems (126, pp. 572-82), (74).

(8) All students should be required to visit the counsellor in order that such a visit may not classify any student as "odd" or different (74).

(9) Teachers should be selected whose personality, temperament and training fit them for guidance and counselling (35), (48), (189).

(10) Full advantage should be taken of parent-teacher organizations to enlist parental cooperation in the guidance program (54, pp. 404-7).

(11) A school clinic consisting of the principal, the guidance committee and the teacher concerned should be set up. This allows opportunity for co-ordinated guidance and forms an instructional "lab" for counsellors and teachers (88, p. 8).

(12) An atmosphere of friendliness, interest and sympa-
The clinical approach is needed to interpret the personality as a whole. It is important to be aware of all the factors in determining causes of maladjustment (94, p. 85), (231), (116, p. 460), (207, p. 211).

An objective attitude is necessary in the field of remedial work (11, p. 174), (6), (94), (15).

Guidance must be individualized and specialized according to the separate needs of each case (126, pp. 224ff), (134). No one standard program is suitable for all situations or for all persons.

The simpler elements of the adjustment problem should be attacked and remedied first before attempting the more complicated aspects of the trouble (53).

In putting these principles into practice, Chisholm (51, p. 25) found that four major handicaps interfered with the success of the program:

1) Teachers were inadequately prepared for the type of guidance needed (64 per cent).
2) Teachers and principals were too busy (63 per cent).
3) Teachers moved to other positions during preparation of a guidance program (37.7 per cent).
4) There was inability to judge how well guidance met the needs.

Along with these factors were found lack of interest, lack of money and lack of planning.
If the guidance program is well planned and carefully arranged, it can avoid most of these pitfalls. When functioning well, guidance will affect all phases of the school program - administration, curriculum, teaching methods, discipline and the teacher herself.

School administration is very important to effective guidance for upon it rests the responsibility for putting into practice the guiding principles of counselling. Newell (165) made a survey of the effects of the co-operation of administration upon the efforts of the guidance clinic to treat pupil problems. In schools where the faculties co-operated with the clinic staff much better results were obtained; in fact, failure to help the children was reported in only ten per cent of the cases, while in the schools whose faculties did not co-operate, the reported percentage was thirty-three. Newell found that, in the co-operative schools, 65 per cent of the cases showed improvements as compared with only 17 per cent in the non-co-operative schools.

Dimmick (66) investigated the effect upon pupil-personality of reorganizing classroom procedure. He studied the changes in behaviour trends and attitudes of 258 children following the reorganization of a school from the ordinary to the remedial type of classes. Marked increases were found in 13 desirable behaviour trends. Most of the teachers felt that the teacher-pupil relationship was improved, and all agreed that it was easier to teach slow pupils by this method.
The co-operation of administration with the counselling body is necessary to secure adequate time allotment (97, p. 64), the keeping of good cumulative record cards (126, pp. 572-82), the selection of suitable teachers (189), and the promotion of parent-teacher organizations (54, pp. 404-7).

School administration must make careful provision for individual differences in order to aid students who are mal-adjusted to school. Provisions for these differences in capacity, interest and personality have taken three forms: homogeneous grouping, special classes and complete individualization of instruction. Cole (54, pp. 435-41) and Koos (126, p. 266) base grouping not only upon intelligence but also upon educational achievement, teachers' ratings, physical development and social maturity. Cole found that selection based on several factors appeared to have been more successful than groupings for which only one measure was used.

An attempt to provide for individual differences will not only affect the administration of the school but will also necessitate changes in the curriculum. Cole (54, pp. 414-34) discusses the curriculum at length. Briefly, she considers that the curriculum should possess cultural, disciplinary and practical values. High-school subjects should be the foundation for further academic or technical and vocational training. They should prepare the student in some degree to meet the needs of the average adult. They should also contain the answers to the most common and vexatious problems.
of the adolescents themselves. In the main, the subject matter should fit them for normal existence in the community and for earning a living. Cole lists her selection of courses that should be on every pupil's schedule:

(1) Social Science,  
(2) Psychology,  
(3) Physical Hygiene,  
(4) Mental Hygiene,  
(5) Biological Science,  
(6) Non-biological Science,  
(7) Child Care and Homemaking,  
(8) English Composition and Reading,  
(9) Music, Art, Physical Education - Extra-curricular Activities,  
(10) Extra elective and vocational courses.

She would establish two-year courses for those who cannot take more time, or who do not have enough ability to complete four years of work. Such short courses should prepare a student for normal living and for the relatively simple lines of work open to him. Cole (54,p.46) believes that the curriculum needs a new "hygiene" course for adolescents. "Such a course should cover matters of diet, sleep, fatigue, over- and under-weight, heart strain, skin infections, perspiration, smoking, drinking and sex manifestations." The course should be taught by teachers who are respected by the pupils and who are not afraid of the facts.

Koos (126,p.41) outlines what he terms a "constants-with-variables" program of studies which does not call for committal by the pupil to specialization during junior high-school years. The program provides a wide range in the "variables" portion. This greater freedom of choice in subject matter makes more
provision for individual differences. Koos goes even further in allowing for these differences by modifying both quantitatively and qualitatively the content of the courses for the differentiated levels.

For the slow learner, this modification is a necessity. Irwin and Marks (112) consider it shameful the way a dull child is demoralized for the good of the curriculum. They believe that, at all costs, school influences should be shaped to avoid giving the student an inward sense of failure and ineffectiveness.

In teaching methods, it is equally as important as in the curriculum, that modifications be made for the maladjusted students. Hanna (98) views remedial teaching as a possible solution to a personality problem. Helping the student to achieve success in school gives him new confidence and self-respect. Marshall (148) believes that a planned "success program" is a vital factor in developing good mental adjustment.

Loftus (138) made a study of the effect upon personality of the use of progressive methods. He compared the scores on personality tests of the students in progressive schools with those of students in control schools. He judged that the students in the former had better social and personal adjustment. They were superior in social attitudes and beliefs as well as in such factors as initiative and co-operation. From this study it appears that progressive methods
assist personality development. The directors of the Eight-Year Study came to a similar conclusion (3).

Cole (54, pp. 445-6) summarizes the requisites of good teaching methods. Teaching should have the following characteristics:

"It must relate drill to some desired purpose and must eliminate sheer monotony as much as possible; it must be interesting; it must give the adolescent mental exercise; it must stir his imagination; it must allow him to feel and develop his independence; and it must provide him with as many explanations as he can understand. Work that lacks these characteristics simply does not get done; no learning can be brought about without the cooperation of the learner."

No outline of teaching methods is complete without a discussion of the effect of discipline upon the maladjusted child. In this regard, Symonds (211, p. 147) makes a pointed claim:

"When it is understood that misconduct by a pupil usually is a symptom of mental disorder, superficial and temporary perhaps, but sometimes deep-seated and permanent, and that one should seek the cause and in each case aim to prevent conduct disorders by removing the cause—then real gain is made in handling disciplinary situations in school. Misconduct is a symptom."

Cutts and Mosely (60, pp. 159-93) give a sixfold program for promoting better behaviour. This program includes:

"1. establishing friendly relations with a child, 2. helping him make desirable friendships with other children, 3. providing success by adjusting his work to his achievement and ability, 4. cultivating his interests, 5. giving him responsibility, and 6. giving him praise. In adapting this program to children who are chronic offenders the teacher may have to make a special effort to overcome
her quite natural dislike for a disturber and a suspicious resistance equally natural on his part."

Most authors consider that much of the value of the remedial work of the school depends upon the character and ability of the teacher. Certainly, a maladjusted teacher presents a poor example for her students, and yet Fenton (75, pp. 294-5) reports the proportion of maladjusted teachers to be 22.5 per cent. He stresses the need for these teachers to seek counseling by specialists in order to help them to right their personal problems.

Baxter (21), after careful investigation, concluded that the conduct of each of the teachers studied was reflected in the behaviour of her pupils. Ryan (189) states that a "healthy school atmosphere can only be created by teachers who are themselves mentally healthy and who have an abiding interest in children and a real respect for the personality of each child .... Whatever the system in vogue the personality of the teacher is, in the last analysis, the medium through which the child comes in contact with it."

Carrington (48) outlines the important qualities of the teacher's personality if she is to be the best influence upon her students: health, pleasant voice, attractive personal appearance, sense of humour, promptness, industry and thrift, intelligence, fairness, interest in social problems, appreciation of individual differences, and love of the beautiful. The teacher needs tact, wisdom, freedom from complexes,
patience, and purposive flexibility. Above all, she needs balance and control.

Jones (114) used the method of planned character instruction to develop personality. He found that this method resulted in a definite improvement in student-character traits, but that the effectiveness of the method depended upon the teacher. Ojemann and Wilkinson (168) claim that teachers must know the personalities of their students if they would be effective personality "developers."

The evidence has shown that a guidance program based on sound principles under trained leaders should help many of the maladjusted students to achieve a more acceptable standard of adjustment. One might, therefore, expect the percentage of low scores in personality tests to drop appreciably as a result of a properly functioning guidance program.

Recommendations for Sex Differences in Personality Within Each Grade

Schreiber (192) found no significant difference between boys and girls throughout the high-school period. Guilford and Martin (96) found that senior boys were more introvert in social adjustment than the girls, but girls were more introvert with respect to their thinking and more emotionally inclined. The writer's study revealed no wide differences in personality between the sexes within each grade. However, there were specific personality areas in each grade.
level which were exceptions to this generalization. If the test data can be considered valid, then the suggestions for guidance in each of the areas where differences occurred would be useful for the sex with the significantly lower score.

Grade-eight girls were found to be significantly freer from anti-social tendencies than the boys of their grade (See Table V). Baker and Traphagen (16, p. 375) found that many anti-social tendencies are much more pronounced at twelve years than at seven years of age. Since the writer's study showed significant improvement in this component after grade eight, it is comforting to teachers to realize that boys in grade eight seem to have reached a peak in anti-social tendencies. Probably this tendency is a natural stage in their development.

Grade-eight girls were found to be lower than the boys of their grade in their self-reliance scores (C.R. 2.98). The writer attributes this inequality to the fact that, while few of the boys have reached puberty in grade eight, many of the girls have, and as a result, the girls are unsure of themselves in their new role of adolescence. Clarke et al (53) outline what they call the direct method of personality exercise and practice for treatment of lack of self-reliance. Such an approach involves helping the student to understand the nature and causes of his difficulty, and then giving remedial practice in the correct responses.
Fenton (75, p.198) stresses how important it is that the student have the assurance that his eventual adequacy is trusted by his family, friends and teachers. Louttit (139, pp.459-60) believes that, whether the cause be physical, mental or social, the aim of improving inferiority feelings (under which he includes self-reliance) should be to remove the child from unsuccessful competition. Cole (54, pp.406-7) advises teachers, attempting to help an adolescent who is over-dependent upon his home, to explain to him the nature of his difficulties. "Once he understands what the matter is, he is often able to work out his own adjustment, either by obtaining greater freedom along conventional lines from his parents or by conformity to their main demands until he is old enough to leave home."

Grade-eight girls ranked significantly lower than their male classmates in freedom from nervous symptoms. (See Table V). Clarke, Tiegs and Thorpe (53, p.11), Cole (54, p.91) and Baker and Traphagen (16, p.173) consider that nervous symptoms very often have a physical foundation. Particularly is this true of adolescents who are undergoing many physical changes. Since many of these grade-eight girls have only recently reached puberty, such an explanation may well account for their lower scores in this component.

According to the writer's study, grade-ten boys have a significantly lower score in sense of personal worth than the girls in their grade level. Here again, the differences
may be due to the differing rates of the sexes in reaching puberty. Most grade-ten boys have very recently reached adolescence and might well be expected to be questioning their individual worth.

To treat pupils troubled with feelings of inferiority or a low sense of personal worth, Louttit (139, p. 459) divides the students into two groups. "Whether the condition at the basis of the child's inferiority is real or imaginary will govern the nature of therapy." Tiegs and Katz (225, pp. 346-8) follow this same division. When the defect is real, they use the direct method of informing the student of the nature of his defects and of giving him remedial work. For correcting imagined feelings of inferiority, time, patience, intelligence, understanding and co-operation are prerequisites of the counsellor. These authors recommend sixteen remedial techniques for this type of maladjustment:

(1) "Establish self-confidence in the child by giving sincere praise for work well done.
(2) Provide opportunities that are in harmony with his abilities and capacities.
(3) Teach the child that all cannot succeed in every field, but that all can be successful in some field of activity.
(4) Avoid situations where the child has no chance to succeed.
(5) Instill self-confidence, courage, and perseverance by avoiding overprotection and oversolicitude.
(6) Curb and replace all negative measures such as reproach, scorn, disgust, ridicule, nagging, and anger with positive measures such as praise and rewards.
(7) Treat the child with respect as well as in a friendly, non-critical, interested, and understanding manner.
(8) Avoid unfavorable comparison with other children; improvement should be viewed with respect to his own abilities and potentialities.
(120)

(9) Reassure the child from time to time that he is a healthy, wholesome, and desirable member of the group.

(10) Encourage him to attack every problem in a frank, straightforward manner; indicate that he has not failed until he quits trying.

(11) Let the child taste the thrill of success and accomplishment in some activity that interests him; this acts as an incentive to continue working.

(12) Play up his special talents and abilities while keeping him active in overcoming his weaknesses.

(13) Provide opportunities for him to make his own decisions and to assume some responsibilities.

(14) Set a good example for the child; let him know about more handicapped children who are succeeding.

(15) Provide opportunities where his achievements can be presented before the group in a favorable light.

(16) Avoid producing feelings of guilt by any suggestions or inferences of immorality or sin."

The writer's study of sex differences in personality revealed that the scores in the area of social standards were significantly lower for the boys in grades ten and twelve than for the girls. The boys of these grade levels appear to require special assistance.

The literature touches only briefly upon social standards. Tiegs and Katz (225, p. 244) believe that social standards are largely the product of imitation, understanding and habit of what is "encouraged, tolerated or avoided in the home." The same authors consider ability to learn as necessarily affecting the knowledge of social standards. Such factors operating equally on both boys and girls could hardly account for the sex differences in scores. Tiegs
and Katz consider that the school program should provide
direct instruction on the nature of social obligations and
standards expected of each individual. Perhaps the latent
interest of the boys could be aroused by such a measure.

Literature Regarding Growth in Personality Traits During
High School

The writer's study revealed a gradual increase in scores
between grades eight and ten and between grades ten and
twelve in total adjustment, total self-adjustment and three
components - self-reliance, anti-social tendencies and
school relations (See Table XIV). Some studies in the
literature disagreed with this finding.

Schreiber (192, p. 214) summarized his findings in these
words:

"The better students began high school better
adjusted than the poorer students. But the
better students after four years were not so
well adjusted as when they entered. The poorer
students did not start school very well adjusted
and at the end of four years their adjustment
remained static with little change. Perhaps
the better students were more critical of their
environment."

A study of personality development during the four-year
college period was made by Norris (166, p. 38). She concluded
that:

"there is little consistent growth through the
four years in personality traits. The growth
indicated occurs largely in the records of
pupils moving from below-average to normal
ratings, not from normal to above-average. A
general trend of improvement culminating in
the senior year is not observed in these data."
This lack of improvement seems to mean that as long as pupils are succeeding they are content with their ratings."

Cole (54, pp. 321-2) takes the point of view that personality maladjustments occur very early in life and that these differences in emotional and social adjustment, like differences in intellectual capacities, remain fairly stable during the school years. Alsop (6) takes a somewhat different point of view. It is his conclusion that, although not all children can be cured or saved, yet all may be given direction towards a more socially acceptable existence.

While the writer's study reveals improvement in total adjustment from grade to grade, it does not show consistent growth in nine of the twelve test components. The general recommendation of Norris (166), therefore, aptly applies:

"With this evidence of lack of continued growth, teachers might well institute a program that would enable pupils to improve from year to year in the traits in which their marks were not satisfactory."

Recommendations for the Areas of Personality in Which Negligible Increases Were Found

The writer's study reveals that the scores in total social adjustment have only minor differences between the grade levels. The same is true in the area of social skills. In addition, the measurements of the students' adjustment to their family and their community remain practically the same throughout the high-school period. (See Tables XV, XVI and XVII).
Cole (54, p. 101) states that "the adolescent years are, pre-eminently, a period of social development and adjustment." So far as the high school is concerned, the organization of social activities takes the form of the extra-curricular program - school government, clubs and athletic activities. Such clubs and other activities of the school should, then, be the means for developing interests, for giving training in the wise use of leisure, for providing practice in self-government, for allowing leaders to practise leadership, and for building character. Yet the test data do not reveal appreciable social development. If this is a valid measurement, then Cole's observation may provide a clue to the reason for the lack of progress toward these objectives:

"It has always seemed to the writer that the pupils who most needed extra-curricular activities for their own development were the ones who had the least opportunity of participating. If it is the function of such activities to develop the personalities of adolescent boys and girls and to train them in social adjustment, then those who most need this training should be the ones to receive it. Instead, the activities all too often become merely the means of self-expression for adolescents who are already examples of perfect social adjustment. The boy or girl who is shy, self-conscious, and repressed rarely has much opportunity to participate in activities and thus to achieve the social ease that he or she lacks." (54, p. 128).

Cole's suggestions (54, pp. 131-34) to remedy this tendency include:

1) A definite period of school time set aside for clubs, every student to attend some meeting;

2) Dispersion of the responsibility for managing various
(124)
social activities upon a large number of students;
3) Intramural tournaments where every member of the school is on some team with approximately equal chances of winning;
4) Some teacher or teachers definitely delegated with the responsibility of bringing about participation on the part of those pupils who most need the training and socialization and who are least likely to get it of their own accord.

Tiegs and Katz (225, p.207) consider that the first and most logical step to improve social relations is that of improving the personal relationship between the inadequate or insecure child and the teacher. Fenton (75, p.241) recommends for better social adjustment the development and co-ordination of community facilities. Prescott (178, p.272) considers it the duty of all teachers to promote social acceptance among pupils in the classroom.

"These personal relationships need to be made more conscious in the minds of all educational workers in order that isolated children may be brought into effective group participation, in order that the effects of mutual rejections may be softened and satisfying belongings established. It is equally important to recognize leaders of all sorts and to demand a genuine conscious assumption of social responsibilities on their parts which will be commensurate with the pleasure they derive from being leaders."

Fenton and Wallace (76, p.60) discuss the development of social skills. To do this, they advocate the provision of adequate social relationships and recreation. Keely (121)
(125)
is more specific and recommends a conscious program in school
to develop poise and lack of self-consciousness in social
situations. He recommends the following: school publications,
Big Brother and Sister groups, teacher advisors, clubs and
assembly programs with a high degree of pupil participation,
lunchrooms, and student-managed campaigns. Koch (124,p.509)
reports an experiment where unsocial students were placed
in pairs with social ones with a resulting improvement in
the maladjusted ones.

An investigation of the literature dealing with the home
factor reveals the educators' keen consciousness of the need
for improvement in home relationships. They consider that
the school must help the home and the student in their re-
lations with one another.

Witmer (75,p.237) suggests four levels of dealing with
the home:

1) Superficial methods in giving concrete and specific
   recommendations;

2) Education of the parent in regard to the meaning
   of the child's symptoms;

3) Insight therapy including an attempt to have the
   parents view objectively their causal relation-
   ships to the maladjustment of the child;

4) Relationship therapy using as its focal point the
   treatment of the parents' own problems.

The ordinary school can usually employ the first method, and
through "Home and School Clubs" can scratch the surface of the second one. Yet, other things being equal, Witmer reports that the chances of improvement increase with the complexity of the treatment. Hence, there is a need for the use of the more complex methods which ensure greater success in improving family relations.

Any treatment of home relations requires the co-operation of the parents. This is a fact strongly emphasized by investigators Foster and Stebbins (80), Witmer, and Healy and Bronner (75, p.85). Healy and Bronner go so far as to claim that "the fundamental recommendations that a clinic may make simply cannot be carried out unless... much more intensive work can be done with families."

Cole (54, pp.404-7) signifies the importance of helping the student who is maladjusted in his home relationships to take a more impersonal view of his home life. The teacher needs to show an adolescent how he can adjust to his home as it is.

The Sixteenth Yearbook of the American Association of School Administrators (161, pp.90-6) suggests that a school program designed to improve family relations should include the following features:

(1) "Some study .... of the process of growing up, so that they will understand (a) their own maturation; (b) the change of life through which their parents are passing; and (c) how to achieve mutual consideration ....

(2) Schools can help parents directly, and youth indirectly, through public education
activities which keep adults abreast of
good contemporary thought in science, art,
and social problems ......

(3) All of our institutions, but parents in
particular, need to counterbalance this
lopsided stress upon 'success' with warmth,
affection, and love which accepts the in-
dividual as valuable in himself and for
his own sake, whatever his record of accomp-
lishments."

Most authors believe that the most direct way in which
schools can help the parents is through parent-teacher organ-
izations. Cole (54, pp. 404–7) contends that such associations
with their impersonal approach can do much toward modifying
the home situation. Symonds (211) includes visiting and
interviewing the parents as one of the psychological services
of the school helpful for problem children.

One of the adolescent's troubles in home relations is
related to sex. Laycock (130) would have parents avoid the
following practices which hinder adolescents' adjustment to
the opposite sex: lack of affection by one or both parents,
over-protection, failure to accept the sex of the child,
lack of true partnership between parents, attempts to keep
the child ignorant of sex matters, presentation of warped
attitudes about the opposite sex, prevention of companion-
ship with the opposite sex as long as possible. Laycock
stresses that it is correct and wholesome attitudes and
feelings rather than facts regarding sex that are important
to development. Parents need to be open-minded and intelli-
gent about sex so that they can relate sex matters to life
unemotionally and effectively (225,p.330). They should provide for adolescents a program of sports, play activities, hobbies, clubs and the like to divert their sex urge into socially approved channels.

Zachry (260,p.532) points out the need for specially trained and experienced teachers to educate youth for future family life. Fenton (75,pp.365-6) and Cole (54,p.423) also regard this instruction of primary importance to make possible improvement in the home relations of future generations.

Turning now to suggestions in the literature on community relations, the available data will be organized under the following headings: what the community can do to help; how the school can help the community; and what the school can do to help the individual adjust to the community.

The community can help in the treatment of maladjusted pupils by the provision of suitable playground facilities which not only keep adolescents off the streets and out of mischief but also provide real fun and healthy activities. According to Butler (44), the ideal playground should have: Planning and leadership for the right type of play, facilities for letting off steam without repression or interference from elders, provision for relaxation, provision for encouragement of a great variety of skills and wide interests, and development through service - the older helping the younger.

Bursch (41) found poor housing to be a factor in causing delinquency. Usually along with poor housing are the
other factors of lack of good food and other minimum essentials. Tiegs and Katz (225, p. 252) describe an attempt in the United States to remedy slum conditions by the Wagner-Steagall Bill which provides for the building of sunlit, airy homes at a rental within the means of the low-wage groups. The same authors recommend that the community provide the youth with libraries, museums, health clinics, Social Welfare agencies, publicly supported Child Guidance Clinics, juvenile courts, and hospitals for those mentally ill. They also stress the important influence of the church in improving community influences.

Fenton (75, p. 381) mentions several reports on the value of Co-ordinating Councils consisting of public officials and private citizens for improving the welfare of children. These Community or Co-ordinating Councils contribute much toward the improvement of community influences. They promote:

A. "Improvements in community services."

(1) Adult education programs (forums, parent study-groups, Americanization classes, family relations conferences, young married people's groups; classes in arts and crafts, dramatics, homemaking, etc.)

(2) Public health programs, development of fire protection, water supply, community beautification

(3) Establishment of nursery schools, child guidance clinics, playgrounds, recreation centers, toy-loan libraries

(4) Lighted playgrounds, backyard playgrounds, garden projects, swimming pools, tennis courts, year-round camps, and other activities such as outings or picnics

(5) Hobby, handicraft, and pet shows; boat regattas, soap-box derbies, educational tours, other recreational events;
(130)

community dances and other group activities
(6) Provision of leadership for boys' and girls' group work and for supervision of recreation centers and playgrounds; encouragement of Big Brother programs
(7) Vacation church-schools
(8) Youth employment bureaus
(9) Vocational Counseling service

B. The establishment of community informational services

(1) Social Service Exchange
(2) Christmas Basket Clearance Bureau
(3) Community Calendars
(4) Directories of Youth Welfare Agencies
(5) Motion-Picture Estimate Services
(6) Public education in regard to the community through newspaper articles, radio programs, and public meetings

C. The support of community agencies

(1) Assistance in Community Chest Drives and benefits for particular agencies
(2) Establishment of Youth Activity Committees, boys' service clubs, leadership-training school

D. The control of undesirable influences

(1) Support of restrictions on gambling, slot machines, etc.
(2) Support of enforcement of liquor laws concerning minors
(3) Support of police officers in the suppression of sale of obscene literature to school children

E. The sponsorship of community surveys

(1) Neighborhood, city, and county surveys
(2) Questionnaire studies of youth problems, including use of leisure time, vocational plans, etc.

F. The support of child-welfare legislation

(1) Housing and slum-clearance projects
(2) Bills for community recreation
(3) Establishment of institutions for defective delinquents
Supervision of children in street trades
(5) Laws dealing with the juvenile courts and delinquency prevention
(6) The licensing of bicycles
(7) Curfew regulations.

Such a comprehensive list of benefits suggests that Co-ordinating Councils afford one of the best means to help youth toward good citizenship.

Few suggestions are revealed in the literature dealing with the services which the school can render the child who is troubled in his community relations. Tiegs and Katz (225,p.159) believe that supervised school playgrounds are a very important factor in improving adjustment and reducing delinquency, especially where the community does not have adequate facilities for recreation and entertainment. Cutts and Mosely (60,p.282) see the need for the full-time operation of the school playground and building as a community centre. By providing clean and wholesome recreational opportunities, the school can compensate for a poor community environment.

The school must give direct help to the child who is not adjusted to his community. Keely (121) believes that the school should help the student to help himself and develop his abilities to assume civic responsibilities.

Erratic Scores of the Boys in Personality Traits

The test data show the scores of the grade-ten boys to be quite unpredictable in the test components. Some components show wide increases, some stationary scores and three
even negative differences when compared with grade-eight boys. A similar tendency is found in the comparison of the boys of grades twelve and ten. The literature contained no specific explanations for such variations. The test data indicate that the grade-ten level is the critical period in three areas of the personality growth of the boys - personal worth, feeling of belonging and social standards - while the grade-twelve level is the critical period in personal freedom and withdrawing tendencies.

From this evidence, it would appear that adequate guidance is especially important to the boys in grades ten and twelve.

**Suggestions to Adjust Guidance to Meet the Special Needs of the Boys and of the Girls**

The writer is fully aware, in presenting the recommendations of the literature for different areas of personality, that the boys and girls may differ naturally at each grade level, or may develop normally from year to year at different rates. Such may be the explanation for the irregular score differences of the test data in Table XIV. However, when the percentile equivalents of some components do not increase over a two-year period, and even at times decrease, the test data may disclose pupil difficulties in those areas and indicate the need for special guidance. On the other hand, the data may indicate a lack of validity of the measuring instrument. The writer, therefore, assumes high validity for the rating device used when he outlines recommendations.
for remedial work in specific components.

When the scores of the boys at varying grade levels are compared, six components show irregular gains and losses. In one of these, freedom from nervous symptoms, the small differences range from 3 to -2 percentile points. Since neither grade-twelve nor grade-ten boys gain in this trait, the suggestions outlined below are meant to apply to both grades. Such a static condition in scores is probably due to the fact that most grade-eight boys are in a pre-pubescent stage and fairly well adjusted to their status. However, the onset of puberty and its physical changes in most grade-ten and grade-twelve boys may tend to aggravate their nervous symptoms.

Baker and Traphagen (16, p. 173) and Clarke, Tiegs and Thorpe (53, p. 11) consider that nervous symptoms may have either a physical or a psychological basis. Where the cause is physical, these students generally need less vigorous exercise, more sleep, and a better balanced diet (54, p. 91). The authors of the California Test of Personality (53, p. 12) recommend the following methods of handling cases with nervous symptoms:

(1) Examine the student's health record;
(2) If the record bears evidence of a physical basis for nervous tendencies, refer the student to a physician for treatment;
(3) If the physician finds no physical cause, the cause is probably the need of a feeling of adequate personal security;
(4) Provide appreciation, approval and ego satisfactions which the individual craves;
(5) Physiological and psychological relaxation should be encouraged.
Grade-ten boys appear to need special help in three of the six components where irregularities are noted – feeling of belonging, sense of personal worth and social standards. The comparison of the boys with the girls in grade ten outlined earlier in this chapter also reveals low scores for the boys in the latter two components. Therefore, the suggestions in the literature which apply to sense of personal worth and social standards have already been given. Recommendations for developing the feeling of belonging remain to be outlined.

Most psychologists agree that adolescence is a time of changing personal relationships. The Sixteenth Yearbook of the American Association of School Administrators (161,p.80) states that:

"the profound changes in glandular function within the body, concurrent with equally great changes in social functions within the culture, make adolescence a time when early patterns of personal relationship may be considerably altered. Dependence upon parents normally decreases, and emotional attachments develop toward persons outside of the family circle. Personal contacts have a much deeper significance when the capacity for mature love replaces the affection of the younger child."

No wonder that some high school students are mixed up in their feeling of belonging! Laycock (130,p.7) stresses the fact that "adolescents are particularly sensitive to the opinion of the 'crowd'." The method of Cole (54,p.107) to help the maladjusted to feel that they belong is to encourage them to get into one of these crowds, for she believes

1. pages 118-121
that "the crowd is a socially valuable unit of adolescent society and probably does more to bring about normal social growth than teachers and parents combined."

Grade-twelve boys have significantly lower scores in the factor of freedom from withdrawing tendencies than the grade-ten boys. No similar tendency was found in other investigations. Numerous recommendations are found for pupils with pronounced abnormal traits of withdrawing (54, p. 323), (157), (225, p. 337), (139, pp. 475-6). The particular emphasis is on remedial work for the individuals who daydream too much. But there are no specific suggestions for group therapy for normal students who reveal withdrawing tendencies.

Both boys and girls in grade twelve have small negative differences when compared with grade ten in sense of personal freedom. One might expect trouble in the area of personal freedom during adolescence. Cole (54, p. 388) points out that "between the ages of twelve and twenty an individual must change from a child dependent upon his home to an adult who is sufficiently detached from his parents to establish a successful home of his own." Complete emancipation in such a relatively short time is bound to bring problems with it. Laycock (130) outlines the chief conflicts arising between teen-agers and their parents as; differences over spending money, late hours, friends, mode of dress, use of the family car and church attendance. These conflicts call for parents who are counsellors and friends, not supervisors and dictators.
The chief duty of parents, according to Jones (113), is the guiding of children in "the direction of independence and self-direction." Tiegs and Katz (225, p. 246) describe this emancipation as progress in a "decreasing resort to authority in parent-child differences and an increasing reliance upon calm frank discussions of problems in terms of the conditions which exist. Undesirable behavior should be treated as offences against the family group and against recognized standards rather than against parental authority."

Remedial work for difficulties in sense of personal freedom, therefore, involves helping the adolescents to understand their problems and helping the parents through such means as "Home and School Clubs" to be aware of methods of resolving their conflicts with teen-agers.

**Implications for a Guidance Program**

Assuming validity for the test results, more emphasis should be placed upon improved methods of diagnosis and treatment of the students with low test scores who might require the help of a specialist. From the recommendations in the literature dealing with the treatment of difficulties in personality adjustment, it is apparent that such assistance involves the clinical approach and more frequent personal interviews.

Since a guidance program based on sound principles and carried out with the full co-operation of administration has been found to help maladjusted personalities, the test
data imply a need for a broad and fully-functioning guidance program which makes provisions for the individual differences of its pupils. Much more should be known of the specific needs of normal adolescents for guidance at the varying grade levels, and of the effect of special guidance upon normal youth.

To allow for the sex differences within the grade, two main emphases are needed in a guidance program. In the first place, the adoption of the "Hygiene" course designed by Cole (54,p.44) might help the girls at the grade-eight level in their self-reliance and nervous-symptom difficulties, and the boys of grade ten in their sense of personal worth. It would appear that such special instruction about puberty and its accompanying problems of adjustment should be given earlier to the girls than to the boys. The second emphasis should be on direct instruction in social standards to the boys in grades ten and twelve. In teacher-training schools, cognizance should be taken of the strong anti-social tendencies of grade-eight boys in order that the inexperienced teacher may know what to expect.

The boys and girls do not appear from the test data to improve consistently in personality traits. The school might well institute a program designed to enable pupils to improve from year to year in the traits in which their scores were not satisfactory. Salient features of such a program would include more frequent and closer contact with the home through
parent-teacher organizations to improve the family relations of the student as well as to eliminate other personality difficulties caused by the home. Giving parents a broader understanding of their job as parents and of the nature of adolescence should promote better student adjustment.

In addition to dealing with the home, the directors of guidance must accept their responsibility for guiding the adolescent toward a better understanding of himself through classes in Mental Health, Physical Hygiene and Adolescent Psychology. The adolescents need opportunity to develop their personalities, not only by studying themselves, but by participation in group activities in order to practise social skills, to develop a feeling of belonging and a sense of personal worth, to improve their sense of personal freedom and to lessen their withdrawing tendencies.

The guidance program must also try to provide the best possible school situation to ensure the maximum development in personality. Cole (54, pp. 445-8) has a particularly applicable section illustrating how teaching methods and curriculum should be adjusted for adolescents. Adolescents are usually impatient of drill or monotony, and will only spend time studying classwork that is interesting and that presents a real opportunity for mental exercise. Whenever possible, subject matter should be approached through the emotions and imagination rather than through impersonal logic. Within
reasonable limits the students should be allowed to plan their own work and the means of getting it done. Strang describes a well-organized school system:

"Its teachers have been selected on the basis of their ability to guide pupils; its leadership is expert and democratic; its school plant is conducive to the best development of adolescent boys and girls; its curriculum provides for their varied capacities, interests, and needs; its clinical services are responsible for continuous in-service education of teachers and gives assistance on problems with which the teacher cannot deal because he has neither the time nor the highly specialized knowledge and skill; its community relationships are co-operative and helpful."

No guidance program is sufficient if it stops with the students, their home and the school. The program must campaign for a community which is safe and healthy for adolescents, and which furnishes a sufficient number and variety of healthy emotional outlets.

Such a guidance program gives special help in the areas in which the test data reveal no increases - family and community relations, social adjustment and social skills.

The test data imply that boys need more attention than girls in one half of the components of the test. Both grades ten and twelve appear to be critical periods of adjustment for boys and warrant special guidance and extra counselling. On the other hand, the girls in the senior year also need special emphasis in the adjustment area of personal freedom.
CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The findings of this investigation can be summarized briefly. It is shown that an appreciable percentage of students have such low scores that they need expert counsel­ling. Assuming that the tests are correct, the study has revealed, also, the general weakness of teachers to recog­nize personality defects.

While it is found to be generally true that the sex differences are non-significant, the need for some sex distinction in instruction is found to be desirable. These differences are perhaps due largely to the differences be­tween the boys and girls in age of onset of puberty. This study indicates that the guidance program should take into account the variations in the rate of development in person­ality traits of the boys. It is believed, too, that atten­tion should be given to the areas of total social adjustment, of social skills and of home and community relations since no significant differences in percentile equivalents are recorded in any of the grade levels tested.

Recommendations and Their Limitations

It is one thing to point out the implications of these findings upon a guidance program, but it is quite another
matter to outline recommendations. The literature did not provide any information of attempts that have been made to meet changing personality needs during the student's high-school life. Hence, there is a lack of any experimental evidence of the effects of variations in guidance programs to adjust to such changes.

To attempt to outline a guidance course without experimental study of its worth seems presumptuous. Any recommendations are, therefore, simply suggested emphases, remedies or changes which, if carried out, might better meet the student's personality needs. These proposed changes would require experimental validation to determine their real value. In the light of the writer's grade-level comparisons of student-personality adjustment in high school, the following recommendations are presented.

1. Teachers would be better able to diagnose and treat personality troubles if there were a definite teacher-counsellor course of studies with in-service training available. The findings of the Teachers' College Guidance Laboratory indicated: "We are sure, after ten years of experimentation in the Guidance Laboratory, that there is no substitute for closely supervised experience in counselling" (74,p.7).

2. To cope effectively with serious problem cases, the school should provide the services of a guidance expert or specialist.
3. To ensure an improvement in the areas of home and community relations and in sense of personal freedom, the high-school course of studies might well provide for discussion on topics of family and community matters as well as a psychology course on adolescence.

4. Regarding sex distinction in guidance instruction, some periods during the year should be given to the separate sexes to emphasize their own special needs of that grade level. A revised hygiene course which provides for sex instruction would require the segregation of the boys and girls.

5. Awareness by the teachers of the differences between the sexes in personality development would give indirect help in the ordinary classroom procedures.

6. Discussion groups dealing with teen-age conflicts with parents and superiors would help to meet the need of improvement in the sense of personal freedom of senior students.

7. Direct instruction in social standards expected of youth should be given to the boys in the last three years of high school.

8. The girls in grade eight need counselling in the areas of self-reliance and nervous symptoms.

9. The boys at the grade-ten level need special provision for group or "crowd" activities to help them in their feeling of belonging and sense of personal worth.

Further Research Needed

For several reasons, the results of this investigation
should be checked by further personality measurement. In the first place, the test results depend largely upon the reliability and validity of the rating device used. Evidence has been cited of the need for improvement in methods used to measure personality. Retesting with other tests would be a check on the results obtained in the first testing. Secondly, the number of pupils tested in this study is comparatively small in the senior grade level. Finally, a more accurate comparison would be obtained from a study of the same group of students at two-year intervals.

The field of personality development has comparatively recently come to the attention of educators. To date considerable experimentation has been carried out in remedial work for seriously warped personalities. However, there has as yet been little attempt to measure the effects of guidance upon the average or normal student. If guidance is to be wisely administered, much more must be known of the needs of the pupils at each grade level and of the results of the present system.

The following is a list of possible topics of investigation in the field of personality. It is in no way complete but it may suggest beginnings, at least.

1. The determination of the growth of personality during the high-school period by measurement at yearly intervals.
2. Experimental research regarding the effect of special help for one group as compared to a control group;
(144)

a) in the area of sense of personal freedom in Grade XII;

b) in the area of sense of personal worth of Grade X boys;

c) in the area of feeling of belonging for the Grade X boys;

d) in the area of social standards for Grade X and XII boys;

e) in the area of freedom from nervous symptoms for Grade VIII girls and for Grades X and XII boys;

f) in the area of self-reliance for Grade VIII girls.

3. Study of the effect of an emphasis in the guidance program upon the student's relation to his family.

4. An investigation of the effect of a guidance program especially designed to improve the student's relation to his community.

5. A determination of sex differences of the students in personality development.

6. A study to determine the validity of the finding of this study regarding the low mean score of Grade XII boys in the area of withdrawing tendencies.
APPENDIX IA

QUESTIONNAIRE GIVEN HOME-ROOM TEACHERS

Dear

The students of your room have been given the California Test of Personality. We now wish to try to check its validity by comparing its results with your opinion and personal knowledge of the students. The test proposes to measure the self adjustment and social adjustment of your students in the factors shown below.

Would you please complete this questionnaire at your earliest convenience and return it to Mr. Wales. Please do not refer to the last page until you have completed the first one.

The information you submit will be treated as strictly confidential.

Thank you.

SELF ADJUSTMENT

1-A Self-reliance ..................
1-B Sense of Personal Worth ....
1-C Sense of Personal Freedom ....
1-D Feeling of Belonging ........
1-E Withdrawing Tendencies ....
1-F Nervous Symptoms ..........

SOCIAL ADJUSTMENT

2-A Social Standards ............
2-B Social Skills ................
2-C Anti-social Tendencies ....
2-D Family Relations ...........
2-E School Relations ...........
2-F Community Relations .......

(145)
Please list the students whom you consider to be very well adjusted both to self and to society, ranking them beginning with the best.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Please list the students whom you consider to be badly adjusted to self and society, ranking them beginning with the worst. It would also be most helpful if you included the symptoms of the maladjustment.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Please do not refer to the next page until you have completed this one.
A. From the personality tests given, the following ranked low in all factors for your class:

<table>
<thead>
<tr>
<th>Name</th>
<th>Do you agree?</th>
<th>If so, what causes do you suggest for the maladjustment?</th>
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</table>

B. The following ranked low in certain factors of personality.

<table>
<thead>
<tr>
<th>Name</th>
<th>Factor</th>
<th>Do you agree?</th>
<th>What causes do you suggest?</th>
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C. These are suggestions of some possible causes of low score.

1. Is it trouble in the home? divorce? separation? loss of parent? etc.
2. Is it lack of ability? or laziness? or shyness?
3. Is it appearance? Too fat or thin, or too tall, etc.
4. Is it money in lack or excess?
5. Is it an inferiority complex?
6. Is it nervousness?
7. Is it low moral and social standards?
8. If you have never noticed maladjustment, could that be because the student is no problem in school, or of very retiring nature?

These are merely a few suggestions and by no means exhaust the many causes. Please add any others which you, from your personal knowledge of the student in question, believe to be likely explanations for the abnormal or maladjusted behaviour or personality.

Thank you for your cooperation.
APPENDIX IB

QUESTIONNAIRE GIVEN THE COUNSELLORS

Please list the students in the class indicated whom you, as counsellor, know to be:

A. definitely maladjusted personalities:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Name</th>
<th>Cause</th>
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<td>2.</td>
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B. definitely well adjusted personalities:

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