Loyola University Chicago

Loyola eCommons

Dissertations   Theses and Dissertations

1970

A Study of the Relationship between Ability Grouping and Personality Traits of High School Girls

Madeleine Sophie Weber
Loyola University Chicago

A STUDY OF THE RELATIONSHIP BETWEEN ABILITY GROUPING

AND PERSONALITY TRAITS OF HIGH SCHOOL GIRLS

by

Sister Madeleine Sophie Weber I.H.M.

A Dissertation Submitted to the Faculty of the Graduate School

of Loyola University in Partial Fulfillment of

the Requirements for the Degree of

Doctor of Philosophy

February

1970

ACKNOWLEDGMENTS

Although the number of persons who have contributed to the production of this paper is too great to permit of individual mention each has my sincere appreciation for his share in the work.

Special thanks are due to the administration and faculty of Immaculate Heart of Mary High School for their interest and support, and to the students who gave of their time to participate in the study. Graduates, Misses Jeanne O'Connor, Anne Gudgalis and Mary Beth McGloon spent hours of dedicated service in compiling the data.

My gratitude is extended to my religious community for providing the opportunity for my doctoral studies, to my local superior, Sister Patrick Mary, for her perceptive understanding and allowance of complete freedom to work on the paper, and to my parents for the typing of the manuscript.

During the actual writing of the paper each member of the committee was outstandingly gracious and helpful. Dr. Samuel Mayo offered suggestions for statistical procedures. Dr. John Wozniak provided encouragement with his suggestions and interest. Sister Constantine carefully read the manuscript and offered helpful suggestions. Dr. John Wellington provided continual interest and support and offered practical suggestions. Dr. James Russell, my advisor, made himself generously available and provided encouraging direction and suggestions. To each of these members of the committee I am truly grateful.

LIFE

Sister Madeleine Sophie Weber, I.H.M. received her B.A. from Manhattanville College, New York, New York, in 1952 and her M.A. from the University of Detroit, Detroit, Michigan, in 1954.

She has taught in grade and high schools in Michigan and Illinois, and has served as Director of Guidance at Immaculate Heart of Mary High School in Westchester, Illinois, for the past seven years.

Sister has been active in local, state and national professional guidance organizations.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I

INTRODUCTION

Statement of the Problem

The grouping of students according to academic ability and/or achievement

has become a rather common practice in the modern American high school. Such

homogeneous grouping is intended to assist each student to become what he has

the ability to become, to help him to develop his potential. Observing and

counseling students who have been grouped according to ability and achievement

has led to the consideration of the possibility that while the students are

undoubtedly, for the most part, assisted in their intellectual development by

this system of classification, there may be some lacks in assistance toward

their personal development.

Emphasis in schools today seems to be placed upon academic achievement

and high marks are equated with the value of the student as a person. Adminis-

trators, teachers, and students themselves, seem to have a tendency toward an

underlying idea that average and below average students are less capable of

making worthwhile contributions to society than are the brighter students.[1]

This concept seems to be sustained in spite of the fact that in bare, practical

reality, it is more often than not, the average and below average students who

can be counted on, who see things through and who are willing to give of

---

[1]Samuel Sierles, "The Slow Learner Can Learn:", Clearing House XXXVI
(February, 1962), p. 361.

themselves without reserve in times of common need. This is not to imply that bright students are excluded from this demonstration of personal responsibility. Many of them do make valuable contributions. But their efforts and successes are usually recognized while those of the less bright often are unnoticed. This paper is a kind of appeal for the recognition of all students, regardless of ability and achievement, for their personal value, and for consideration of means of helping them to develop their potential more effectively than is currently being achieved.

Purpose of this Study

The purpose of this study is to investigate personality differences among students who have been homogeneously grouped for their classroom instruction. Determination of the groups was made by consideration of intelligence quotient as measured by the high school placement test, composite achievement score on the same test, eighth grade report card marks and achievement test scores, and recommendations of eighth grade teachers and elementary school principals.

It seems that if students are really becoming educated for life they should be educated as whole persons. This would mean being educated spiritually, morally, socially, physically and intellectually. Each of these areas does not fall specifically within the realm of the classroom teacher, but each does belong to the development of the total person.

This study is concerned primarily with social and personal growth in the light of academic potential and achievement. It is concerned specifically with the area of self-actualization as measured by the Personal Orientation Inventory (POI) of Everett Shostrom. It seems that all students, regardless of intellectual ability level, should share in some general level of personal leadership ability and self-actualization, and should be growing toward an

increase in the functional level of maturity as they chronologically move toward adulthood. This belief receives some support in Maslow's statement that "most people tend toward self-actualization...and (that) in principle at least, all men are capable of self-actualization."[2]

A self-actualized person "may be defined as a person who appreciates himself and his fellow man as persons or subjects with unique potential - an expressor of his actual self."[3] Shostrom continues:

> A person who is actualizing trusts his feelings, communicates his needs and preferences, admits to desires and misbehavior, enjoys a worthy foe, offers real help when needed, and is, among many other things, honestly and constructively aggressive.[4]

Maslow refers to the self-actualizing person as one who is functioning more fully than the average individual and thereby is living a more enriched life.[5]

Shostrom's definition of the self-actualizing person contrasts with his description of modern man who he terms a manipulator,

> a person who exploits, uses, and/or controls himself and others as things in certain self-defeating ways...(one who habitually conceals and camouflages his real feelings behind a repertoire of behavior which runs the scale from arrogant hostility to servile flattery in his continuous campaign to serve his own wishes. In part, at least, he is a manipulator because he isn't aware of his actualizing potential.[6]

---

[2] Abraham H. Maslow, "Psychological Data and Value Theory" in New Knowledge in Human Values, ed. Abraham H. Maslow (New York: Harper and Row, 1959), p. 128.

[3] Everett L. Shostrom, Man, the Manipulator (New York: Bantam Books, Inc., 1968), p. xii.

[4] Ibid.

[5] Maslow, loc. cit., p. 49.

[6] Shostrom, loc. cit., p. xii-xiii.

Perhaps this unawareness explains the dichotomy that seems to exist among adolescents who appear to belong to the ranks of the manipulators on one hand, and who scorn the "phoney" on the other. At the same time that they plead for sincerity and honesty, and beg to be treated as persons, they plan on how to get around parents, teachers and employers for the attainment of their desires.

Perhaps in their youth and inexperience, adolescents are expressing a need about which they are confused in their own minds and hearts. It may be that they are confusing self-actualization with self-concept actualization. Self-actualization includes the living of one's unique identity. Self-concept actualization refers to the striving for some ideal which is not the real self. Part of the educator's job is to help adolescents to clarify their goals and to determine the directions for achieving them. We do not expect that high school students are self-actualized but we would hope for them to be growing toward that end as they progress from the first to the last year of secondary education. It seems that if each curriculum group meets with education geared to the needs of the individuals within the group there would be progress toward self-fulfillment regardless of the group level.

The classroom can easily become a field for either manipulation or self-actualization.

> A manipulator's style of life involves four fundamental characteristics: deception, unawareness, control, and cynicism. The actualizor's philosophy of life is marked by four opposing characteristics: honesty, awareness, freedom, and trust. The change from manipulation to actualization is in general on a continuum from deadness and deliberateness to aliveness and spontaneity.[7]

---

[7]_Ibid._, p. 23.

Teachers can either maintain rigid control over their students and manipulate them as things rather than as persons, thus stifling all spontaneity and originality, or they can create an atmosphere where the students are accepted for what and who they are and hence, are encouraged to be themselves and to give free, but self-controlled, expression to their ideas. Honesty, awareness, freedom and trust all have a place within the classroom of a teacher who is growing toward maturity and self-fulfillment with each additional day. We know that we are a long way from the achievement of the atmosphere conducive to self-actualization in our ordinary classrooms.[8] It seems important that we become more aware of what we are doing and try to discover what more we can do and how we can do it.

It is the purpose of this paper to study similarities and differences in the area of self-actualization development in students who are grouped for classroom instruction according to their ability and achievement with the alleged purpose of helping them to grow toward maturity and to become contributing citizens according to the level of their own talents and ability.

The subjects included in the study were 1299 students in a comprehensive, suburban Chicago, all-girl high school. The students reside in thirty-six different suburbs and come from widely varied backgrounds of nationality and socio-economic status. Most of the students are Roman Catholics.

Students represent all four grades of high school. Each grade is divided into ten curriculums. For the purposes of the study the ten curriculums were classified into four groups. The results are expected to indicate whether

---

[8]Katheryn Johnston Noyes and Gordon L. McAndrew, "Is This What Schools Are For?", Saturday Review LI (December, 1968), p. 58.

there is any significant difference between the groups on each of the subtests
of the Personal Orientation Inventory within each of the four grades. Because
of the maturity level and age level differences it did not seem feasible to
work with the four grades together as one unit. Therefore, each grade is
treated as an entity and the students within the grade are compared.

It is hoped that the results would shed some light on the effectiveness
of ability grouping on the development of the total person and that they will
contribute information for the practical use of school administrators and
teachers, particularly those in large, Catholic, comprehensive, suburban, all-
girl high schools.

Limitations of the Study

Counseling experience indicated that efforts must be made toward dis-
covering some of the personal developmental aspects of today's adolescent girl.
This paper is a small attempt to see what, if any, effects homogeneous grouping
may have on self-actualization development in high school girls.

The Personal Orientation Inventory was selected because it was the only
instrument found which seemed to touch upon those aspects of personality which
appear constantly before the minds of our youth. The POI contains scales to
measure time competence, inner directedness, self-actualizing value, existen-
tiality, feeling reactivity, spontaneity, self-regard, self-acceptance, nature
of man, synergy, acceptance of aggression and capacity for intimate contact.
These are the matters about which the adolescents of today express concern, and
which have become, at least semantically, a part of their daily vocabulary.
They seem to reflect their current problematic interests. Questions are posed
and statements made (with varying degrees of understanding) relative to sensi-
tivity to self and to others, freedom to be one's self, self-image,

self-acceptance, self-fulfillment, self-worth, existentiality, and meaningful relationships. These matters really seem to be on the minds of youth. The POI seemed to contain the means of measuring them.

The norms for standardization of the inventory include only 412 high school students. This small reference group can be used as a guide, but it has definite limitations for comparison, particularly since male and female students' results are not differentiated and no mention is made of specific grade level.[9] This did not seem a sufficient drawback to exclude the inventory, since primary interest is in the girls who are students in the school under study.

The inventory is comparatively new, having been published in 1966, and needs further use for its merit to be more definitely established.

In spite of the limitations of the inventory, small norm population and recent publication, it seemed to be the best instrument available for the aspects of personality which were of interest for this research.

A study of the personality differences among students in homogeneous grouping does not imply any idea that a great deal of heterogeneity does not exist in areas other than academic ability and achievement. Differences also exist in these areas, but they are not the matter under consideration for this study. It seems unfair that capable, understanding, socially mature, well accepted and informally followed students are never permitted to run for major office and are rarely chosen for any committee leadership on the basis of their being in one of the lower curricula. It is assumed that one of the

---

[9]Everett L. Shostrom, Manual: Personal Orientation Inventory: An Inventory for the Measurement of Self-Actualization (San Diego: Educational and Industrial Testing Service, 1966), p. 12.

outcomes of this particular investigation might be the recognition that there is homogeneity throughout each grade, just as there is heterogeneity within each individual curriculum.

Hypothesis

The hypothesis of this study states that there is no significant difference in responses to the twelve self-actualization concepts of the Personal Orientation Inventory when comparing:

A. The four groups of Grade 12 students
B. The four groups of Grade 11 students
C. The four groups of Grade 10 students
D. The four groups of Grade 9 students.

The results on each scale are considered individually for each group within each of the four grades.

CHAPTER II

REVIEW OF RELATED LITERATURE

There seems to be a great paucity of material related to personality

development of high school students, particularly in connection with homoge-

neous grouping. Works included here are among those which treat of some

aspects of homogeneous grouping as a method of student classification for more

effective education. References covering the Personal Orientation Inventory

follow those regarding grouping.

Today we hear much about the bright, the slow, the culturally deprived

and the retarded child while little is said of the "average" child. Southworth

introduces his comments on "The Average Student" with a statement of his

inability to define the word "average."

> Does it mean an I.Q. of from 90 to 110? Is it the C student?
> The identification must be questioned since our tools are
> not precise and we do not know the many variables influencing
> the student...Some readers may be disturbed by my seeming in-
> ability or unwillingness to define the terms in question.
> However, I believe that our readiness to create pretty little
> boxes to place persons in is a wonderful means for satisfying
> our own needs for security but does not solve anything.
>
> Average students are relegated to the middle group in our
> homogeneous grouping systems and they are treated as 'solid
> citizens'...In many courses we force the same dead, dry
> material at them as at those in the upper groups, hoping
> they will learn it...We do not really want them to do too
> well because it would destroy the grouping system, and what
> would take its place in well-ordered schools?
>
> It appears that we expect little from the average students,
> even when it comes to the search for talent and for potential
> leaders. We may say that average students with ambition will

> rise above their lot, but not many are expected to progress
> very far or very fast. (Some recognition is being given to
> the fact) that bright students are not always the major con-
> tributors or the future leaders..(Searching elsewhere for
> talent seems to focus on the specially deprived minority
> groups)...Perhaps our interest in special groups satisfies
> our consciences that are stirred by our failure to deal
> with students as persons.[10]

The concepts related by Southworth, evidently resulting from his own experi-

ences, are closely aligned to those which gave the impetus to this study.

In "Using the Curriculum to Build Personal Strength" Wilhelms points out

that schools are expected to produce good citizens as well as intellectually

educated ones. Because of the pressures put upon the schools and in view of

the system of education, "basically, in the life of the school, each child must

accomplish most of his personal development in the context of the group, and he

must do it while learning the subject matter which the school has laid out to

be learned."[11]

Wilhelms believes that schools can accomplish the dual end of imparting

knowledge and of assisting the individual's growth in power of personality if

two conditions are implemented. The school will be able to provide a liberal

education only if it will establish a climate of freedom, acceptance and growth

within the school as a whole, and if it will deliberately use the subject

matter in the curriculum for the purpose of human development.

If the school can provide the climate, the chances for full growth are

excellent where the child will have

---

[10] Robert S. Southworth, "The 'Average' Student: An Educational Non-
entity?" The Clearing House, XL (February, 1966), 323-24.

[11] Fred T. Wilhelms, "Using the Curriculum to Build Personal Strength,"
The Bulletin of the National Association of Secondary-School Principals,
XLVIII (January, 1964), 91.

an accumulating reserve of experience that carries him
courageously into new and risky ventures, (and) a concept of
himself that nerves him to dare...(This image of the child)
assumes that life takes strength, and it is based on faith
that a rugged inward strength can grow to a level of power
most men never know they could have had.[12]

In "The Non-Graded Educational System: An Analysis,"[13] Chittister refers

to the traditional method of grouping students on the basis of past academic

achievement, intelligence tests and national test scores as an interesting but

illogical exercise. She continues to explain that this method of placement

employs information of what the pupil has done and is based on former per-

formance, while it ignores the student as he is at present. She comments

further that "traditional grouping strongly discourages a student from doing

better or catching up. The low ceiling on the 'C' group in which he has been

placed for the third time may offer no heights challenging enough to reach

for."[14]

Teachers are also victims in this system. Students are classified and

stamped by the office as slow, average or bright, but there is no stamp of

further description such as, interested or disinterested. Teachers are ex-

pected to carry through on the classification set by the office.

Chittister favors the non-graded school system where students are given

more freedom of subjects and pursuit of own interests as well as greater

personal responsibility for independent study and greater opportunity to work

at their own levels.

---

[12]Ibid., p. 103.

[13]Sister Mary Peter Chittister, "The Non-Graded Educational System: An
Analysis," Catholic Educational Review, LXV (December, 1967), pp. 582-589.

[14]Ibid., pp. 583-84.

Lass reports of a challenging approach to grouping effective at the Abraham Lincoln High School in New York.[15] Here, each pupil receives an individualized program so that needs are met in each of the subject areas, thus allowing for wide variations among students and within students. The school is committed to the principle that excellence and disabilities are specific to each individual and believes that the school has the obligation to hear the voice of each of its students.

Metcalf also stresses the importance of recognizing that individual differences are unique and that students cannot be neatly grouped and treated as one. He considers the position of the teacher to be of great importance in meeting the individual's needs.

> The most effective high-school teachers are those who have the capacity to take a group of students at the beginning of the year, and through impact of personality and use of devices of one kind or another, provide for each an incentive and a plan. To be effective, I contend that the high-school teacher must have capacity to individualize instruction to a greater or lesser extent, because every group of high-school students however selected will vary greatly in capacities, interests, goals, response to stimuli and in other respects... Thus, the individuality of the student and his capacity to learn become important factors in his progress.[16]

Intelligence quotient is one of the key elements usually considered with a degree of certitude by educators making decisions regarding the grouping of students. Hardin questions whether we really know what intelligence is.

---

[15]Abraham H. Lass, Summary of a presentation on "A New Issue In Grouping - Vertical Enrichment vs. Horizontal Enrichment," The Bulletin of the NASSP, XLV (April, 1961), p. 205.

[16]Harold H. Metcalf, Summary of presentation on "A New Issue In Grouping - Vertical Enrichment vs. Horizontal Enrichment," The Bulletin of the NASSP, XLV (April, 1961), p. 206.

...we know that the word stands for something that is of
inestimable value in a competitive world...If we are to
proceed, it must be in two ways. On one level, to meet the
day-to-day challenges of a conflict-driven world, we must
take the concept of intelligence in all its present ambiguity
and make our choices in accordance with it. This is the
level action. At the investigative level we must continue
to try to unscramble the components of the complex we call
'intelligence' and try to work out their dynamics, in order
that we do not continue to make errors tomorrow that we are
undoubtedly making today. Obviously we cannot now say what
these errors are: if we could, we would stop making them
right now.[17]

In "The Curriculum and Individual Differences" Wilhelms[18] points out that

curriculum are planned for groups and the patterns designed by curriculum

builders are geared to the abilities and needs of a group. It is up to the

teacher to devise means to meet the needs of the individuals within the group.

School programs usually have such divisions as the college preparatory, com-

mercial and general curriculums. These are divided into honors, above average,

average, below average and slow groups. Frequently the groups become labeled

and school personnel speak of them as "homogeneous" and the "honors group" or

the "slow group," apparently not recognizing the presence of variations within

the group. Most teachers object to suggestions that individual differences

exist within their "groups" for which they are able to plan neatly. This type

of mentality on the part of educators allows for little development of indi-

vidual traits in the students. Attempts have been made to individualize

---

[17]Garrett Hardin, "Biology and Individual Differences," _Individualizing Instruction: The Sixty-first Yearbook of the National Society for the Study of Education_, ed. Nelson B. Henry (Chicago: University of Chicago Press, 1962), pp. 15-16.

[18]Fred T. Wilhelms, "The Curriculum and Individual Differences," _Individualizing Instruction: The Sixty-first Yearbook of the National Society for the Study of Education_, ed. Nelson B. Henry (Chicago: University of Chicago Press, 1962), pp. 62-74.

instruction by individual teachers and through administrative plans such as

supervised correspondence study, independent study, laboratory experimental

study. These have been successful in providing wider selection of courses and

for allowing the student to progress at his own rate, but according to the same

basic routine as followed by others in the same curriculum.

> As a generality, curriculums are planned for groups, not for
> individuals. To move closer to fitting individuals, the total
> group has often been subdivided in various ways, on the basis
> of general intelligence, special aptitude or interest, voca-
> tional goal, and so on. But the curriculums for these sub-
> groups have, in turn, been planned for the group, not for the
> individual. And while some gains have been made, the assump-
> tion of 'homogeneity' and the narrowness of specialized
> courses have introduced some added risk of subordinating the
> individual to the type. In curricular plans based upon in-
> dividual instruction, the individualization has been largely
> illusory. A considerable mechanistic quality has limited
> such schemes, and the fact that the individual students came
> through the successive turnstiles at their own pace has been
> made to signify more than it actually means...If we can shake
> off certain preconceptions, curriculum-planning itself can
> move toward the unique individual.[19]

In his discussion of "Intraindividual Variability," Tyler[20] suggests

caution in interpreting the I.Q. in terms of native ability, and in opinions

regarding the nature of the relationship between ability and test scores, both

of which are very important in arranging students according to homogeneous

grouping. When students with similar scores on ability and achievement mea-

sures are placed in groups, much heterogeneity still remains. In addition to

variations among the students, there is intra-individual variability to be

---

[19]Ibid., pp. 65-66

[20]Fred T. Tyler, "Intraindividual Variability," Individualizing Instruc-
tion: The Sixty-first Yearbook of the National Society for the Study of Educa-
tion, ed. Nelson B. Henry (Chicago: University of Chicago Press, 1962), pp.
164-174.

considered. Individual students in all curriculums are better in some areas
than in others. Nevertheless, homogeneous grouping is helpful in the classroom
situation as it does reduce a degree of heterogeneity. It is important to
remember that there are limitations to such grouping. The harm done to stu-
dents through homogeneous grouping usually results from the assumption that the
group is homogeneous and therefore instructional procedures and methods can be
effectively geared to the needs of the group as a whole.

Hoover and Hoover suggest "A Plan for Grouping in the Secondary Class-
room,"[21] to aid secondary school teachers who are in a dilemma as classes are
getting larger and the spread of individual differences is steadily increasing.
Variations in ability in grouped classes are about 83% which is as great as the
variations in unselected classes. Perhaps academic classes of 30 students or
more could be divided into subgroups on the basis of a pre-test, past achieve-
ment and I.Q. Changes of subgroups would occur with the completion of a unit
of work. Any competition would be confined to the students within the sub-
group. The teacher would set up the minimum group achievement levels and the
degree of depth would depend upon the progress of the individual. At the be-
ginning of implementation the system would place additional work on the teacher,
but once it was set up there would be no additional time demand.

This system has been experienced by the authors. They list several
advantages:[22]

> 1. Increased motivation is apparent at all levels, as instruction is
>   placed on a reasonable plane for all.

---

[21] Kenneth H. Hoover and Helena M. Hoover, "A Plan for Grouping in the
Secondary Classroom," Education, LXXXVIII (February, 1968), pp. 208-212.

[22] Ibid., p. 211.

2. Almost always overall class achievement is enhanced. Bright students especially profit from the experience.
3. Once the system begins to move discipline problems are minimized. Although the system tends to promote a variety of simultaneous class activities, each student tends to become actively engrossed in his own learning tasks.
4. System tends to develop increased student-suggested activities as real-life applications begin to become apparent.
5. There seems to be some peer pressure created for one to move to the group which is commensurate with one's abilities.
6. Parents, when sufficiently informed, usually like the plan.

The greatest weakness in this class subgrouping arrangement is in the danger of stigmatizing certain individuals as dumb or dull. The authors consider this not any greater a hazard than that which exists in the various curriculum adjustments already in vogue, such as dual track systems and homogeneous grouping.

Tompkins[23] indicates the heterogeneity of homogeneous grouping when he speaks of individual differences. Perhaps it is true that teachers will teach more and students will learn better when the latter are placed into groups with others of the same ability. But it must be remembered that any group is made up of individuals who learn as individuals regardless of how great or how small the number with whom they share the learning experience. Learning is an individual and personal process.

Clark believes in the necessity of accommodating the modern secondary school curriculum to the individual differences of the students, but questions some of the present attitudes and practices. He wonders if ability grouping and tracks are the best means for providing for individual differences and if teachers are ready for these means. He finds it rather disconcerting to be

___

[23]Ellsworth Tompkins, "Individual Differences in the 1960's - Their Implications for School Administrators," Bulletin of NASSP, XLVI (April, 1962), pp. 1-7.

told when visiting a school, "This is a slow class, you can't expect much from them," or "This is one of our slow college-preparatory classes. It is not an example of the best we can do." It further disturbs him to see teachers who look down their noses at good average students and those below, and who are almost insulted if asked to teach anything lower than the top group. Some schools have teachers who seem to have given up entirely on the slow pupils and make little effort to teach them at all.[24]

Ability grouping was invented with the intention of making it easier for teachers to do a better job teaching pupils of all levels of ability. Some schools are successful in achieving this. "But is it possible that our great interest in excellence is making us forget that each person has worth and each child is an end in himself? Are we forgetting that we must not only teach subject matter but must also teach it to boys and girls?"[25]

Clark is also disturbed by school administrators who tend to pigeon-hole students into inflexible curricula or groups as though they are infallible judges of talents and steps of development. It is important that we do not forget the humanness of boys and girls in our attempts to allocate them into specific groupings.[26]

Much research and study is needed for better understanding of the problem of how to provide for individual differences. Ability groupings and curriculum tracks are only two of the means open to us. Grouping within classes has been

---

[24]Leonard H. Clark, "Ability Grouping - A Third Look," Bulletin of NASSP, XLVII (December, 1963), p. 69.

[25]Ibid., p. 70.

[26]Ibid., p. 70.

successful on the elementary level, and perhaps would be appropriate in the secondary school. Differentiated assignments, individualized instruction, continuous promotion, non-graded schools and unit method of learning all provide for common needs and for individual differences. It is up to the teachers to provide the actual means and techniques for treating individual differences. Success of what the administrators suggest depends upon the efforts of the teachers. The real advances in providing for individual differences must come through the experimentation of the teachers and not the administrative patterns with which they are provided.[27]

DeHaan and Doll provide some stimulating thought for teachers interested in helping their students to develop according to their potential.

> Individualization of teaching is, under the best conditions, a difficult, easily misunderstood function. Individualization of teaching goes beyond the content of the curriculum and beyond the standardized instruction. Certainly it goes beyond routine academic achievement, for individualization gives personal relevance to experiences which the individual learner shares with other members of his group.
>
> Unquestionably, increased individual responsibility and commitment are needed in our society. In order that learners may become increasingly responsible and committed, their potential as individuals must be discovered, developed and released.
>
> ...Human potential is everything with which the individual is capable of responding...It is total personal responsiveness without preconceptions concerning the limitations of that responsiveness. The most helpful orientation that an educator can hold toward discovering, developing, and releasing human potential is openmindedness concerning each learner's potential, together with a sense of obligation to help each learner realize his potential, which is in conformity with his own best interests and with social ideals.
>
> ...Teachers need to emphasize discovery of potential in learners. They can do this, in part, by providing

---

[27]Ibid., p. 71.

opportunities for learners to discover their own powers' as
they participate in the numerous mental, emotional, aesthetic
and social interactions involved in the learning process. The
teachers' concern should be not only with the content of learn-
ing or with the end product of the learning process, but also
with the continuing process of self-discovery which should
accompany learning and give the content and the learning
process personal relevance...In a real sense, the goals of
education are only partly reached when the pupil achieves well
academically. The goals are most fully attained as he continues
to discover himself in the process of 'getting an education.'[28]

Polglaze presents "A Guide for Grouping" in which he presents nine ques-

tions which he thinks are worth considering in attempting to produce effective

grouping conducive to effective learning.[29] The questions are:

1. What are the pupil needs which will characterize the group or
    groups of pupils?
2. Before including any individual pupil within a group, have the
    variables which influence the learning process for each indi-
    vidual pupil been analyzed?
3. After the group has been organized, has an analysis been made of
    expected behavior?
4. Are provisions made for all groups to participate in activities
    which reflect the broad purposes of the school?
5. Is there flexibility built within the grouping process?
6. Does the teacher assigned to a particular group or groups of
    pupils have the personal and professional skills necessary to
    initiate and carry out effective teaching?
7. Do teaching methods and techniques used in the classroom meet
    the needs of the structured group?
8. Do the materials of instruction meet the defined needs of the
    structured groups?
9. Is evaluation of pupil development and achievement carried out
    in terms of the identified pupil needs?

These questions would be well pondered by administrators and teachers who are

---

[28] Robert F. DeHaan and Ronald C. Doll, "Individualization and Human Po-
tential," Individualizing Instruction, ed. Ronald C. Doll (Washington: Associa-
tion for Supervision and Curriculum Development, NEA, 1964), pp. 13-15.

[29] Robert Polglaze, "A Guide for Grouping," The Clearing House, XXXVI
(September, 1961), pp. 51-53.

concerned with current systems of grouping. Perhaps they would gain insight

toward possible areas of improvement.

Baughman and Schoonmaker present some of the aspects of the discussion of

heterogeneous grouping vs. ability grouping which took place at the Illinois

Regional Drive-In Conference in 1959.[30] There was general acceptance of

ability grouping as the best means currently available for meeting individual

instructional needs. The consensus seemed to be in favor of ability grouping

in academic subjects, with heterogeneous grouping in other subjects and in the

homeroom. There was general recognition that any attempt to adjust the cur-

riculum to each pupil's needs would require more intimate knowledge of each

child, a closer school-home cooperation, more assistance in scheduling to meet

these needs, and increased budgetary expenditures. It was further agreed that

it was desirable for each teacher to group the students within her class re-

gardless of the organization of the school or the composition of the class.

In "A Workable Approach to Grouping," Kolson mentions some of the limita-

tions of homogeneous and heterogeneous groupings and sets certain criteria to

be considered in the approach to grouping. In homogeneous grouping: (1) Plac-

ing a child in a slow group stigmatizes him as a "dummy," and he soon loses all

motivation; (2) Teachers evaluate the child for the group he is in and do not

bother to make individual evaluations; (3) Potential leaders are placed into

the same groups, and some of them are forced into the position of followers

without space to develop their leadership potential; (4) Students may begin as

a homogeneous group but, after a few months of learning and development, they

---

[30]M. Dale Baughman and David Schoonmaker, "Grouping Practices in Junior
High," The Clearing House, XXXVI (October, 1961), pp. 111-114.

are no longer homogeneous because of the different paces at which they progress. In heterogeneous grouping the teacher is faced with such a wide range of ability and achievement that he is forced to use a generally wide approach in order to reach the middle group. Criteria to be considered for devising a system of grouping include: (1) workable groups, where the size is manageable; (2) narrow range of ability; (3) nonstigmatized children so that each child has a face saving device within the group; (4) recognition of differing rates of learning, even though students are at the same level of achievement; (5) ease of administration so that little clerical work and no additional testing are necessary and (6) no financial commitment necessary since the plan requires no additional staff or equipment.[31]

Olsen's question "Should We Group by Ability?" is followed by several considerations of the subject. The argument for ability or homogeneous grouping based on intelligence and/or achievement scores is that if we narrow the range of ability and achievement within an individual class we thereby increase the quantity and quality of learning in that class. The validity of this hypothesis is becoming a major issue today because the practice of ability grouping involves broad social issues. These issues naturally flow from the bussing of children, the new schools in borderline areas and the redefining of district boundaries.

> Also, "most teachers and administrators would agree that when a child is confined to a particular ability group he is committed, whether we like to admit it or not, to an education of a very definite caliber. The student who has been placed

[31]Clifford J. Kolson, "A Workable Approach to Grouping," The Clearing House, XXXVI (May, 1962), pp. 539-42.

in a slow class quickly learns that he is in the 'stupid' class.[32]

There is also overwhelming sociological evidence that ability grouping offers a way in which we can create de facto segregation in the classroom after we have integration of the schools...Low income children are almost always assigned to the lower-ranking groups, and upper-income children to the higher-ranking groups...As long as educational and social opportunities are unequal, test results will be unequal; yet, through these tests, educators help to strengthen the segregation and class barriers they profess must be overcome.[33]

Thus, students find themselves in an intellectual ghetto which closely parallels the social ghetto of their neighborhood. Less is expected of students who score low on the academically oriented intelligence tests than of those who obtain higher scores. This attitude of the teachers is reflected in the students who expect less of themselves, and who grow to accept their own intellectual inferiority. Thus, the students in lower-ability groups tend to develop a sense of intellectual inadequacy which remains with them throughout their lives. On the other hand, high-ranking students are willing to admit that they feel superior to the students in the lower-ability classes, and will even refuse to associate with them for fear of being considered "dumb." The better and more experienced teachers usually are assigned to classes of the better students, and those who need the best teachers are deprived of them. In spite of this, research indicates that ability grouping of itself does not improve the academic achievement of students. Research also indicates that bright students grouped according to ability do not learn more than others. There seems to be no consistent pattern for the effectiveness of

---

[32]Jim Olsen, "Should We Group by Ability?" The Journal of Teacher Education, XVIII (Summer, 1967), p. 201.

[33]Ibid., p. 202.

homogeneous grouping, whether this grouping is based on age, ability level or course content.[34]

Actually, I.Q. and standardized test scores indicate how a student does on a particular test at a particular time, but they do not provide "a valid qualitative index of individual differences in instructional needs, abilities, motivational levels, or learning styles."[35]

> "In short, grouping does not solve the problem of meeting individual differences. Rather the practice of ability grouping actually militates against a true differentiation of teaching according to a student's need because we use it to rationalize what we really do in our schools: teach the class as an undifferentiated unit. We may talk about individualized differences, but the real differences in experiential background; academic abilities; verbal, perceptual, and auditory skills; differences in interests and in previous educational background are glossed over and ignored in daily classroom practice.[36]

A program should be constructed which would make it possible for teachers to individualize instruction according to content of learning, level of content, kind of methodology, and the speed of learning. For such a program it would be necessary for the teacher to measure and diagnose continually so that the student can learn according to his own needs. This would put the primary responsibility for the learning process on the students rather than on the teacher. A structured learning and environment of this type would provide the students with the reality of making decisions and taking initiative. Students would not be afraid to risk behavior change as the teacher would be working "with" the student and not in a judgmental capacity. If we can adjust our

---

[34]Ibid., pp. 202-203.

[35]Ibid., p. 203.

[36]Ibid., p. 203.

programs to give students the freedom to grow and to realize their potentialities, then perhaps we can resolve some of the inconsistencies that exist between what we say and what we do.[37]

Spurred on by the abundance of research and experimentation directed toward determining whether or not ability grouping has any effect on academic achievement, Schrank made a study of USAF men in two mathematics groups. There are many strong supporters of homogeneous grouping and just as many supporters of heterogeneous or random grouping. A third group of researchers states that "ability grouping of itself has no significant effects upon academic achievement and that differentiated curriculums are the best means for productive achievement gains."[38] Schrank's experiment was designed to provide evidence relating to these differences of opinion.

Schrank divided 204 enlisted airmen at the USAF Academy Preparatory School into two equivalent subgroups. Each subgroup was sectioned according to ability for one mathematics sequence and randomly for the other. Grade averages for the subgroups were compared using the two-tailed t-test. For a standard curriculum, the randomly sectioned group surpassed the ability sectioned group at the 5% level, and for the sequence with differentiation by acceleration, the ability sectioned group surpassed the randomly sectioned group at the .1 percent level. These results indicate that it is more what is done for a given group than the method of grouping that affects achievement.

---

[37] Ibid., pp. 203-204.

[38] Major Wilburn R. Schrank, "A Comparison of Academic Achievement in Mathematics of Ability Grouped Versus Randomly Grouped Students," The Journal of Educational Research, LXII (November, 1968), 126.

Schrank concludes that many of the studies of ability grouping versus random grouping have actually compared teaching techniques or other factors in the learning situation rather than the effects of the grouping. "Ability grouping, random grouping, or any other method of grouping will be advantageous or disadvantageous only to the extent that it facilitates a more effective application of teaching-learning variables associated with a given situation."[39] The type of instruction to be used should be that which is most desirable for the group to be taught.

Urevick[40] contends that ability grouping is undemocratic. On the surface ability grouping seems to be an ideal way to arrange students. Since the students are categorized after extensive testing and placed with students of very similar ability as measured by the tests, the teacher knows the level and needs of his group and is able to teach effectively and efficiently. In this way, the students learn more and the class functions easily because the group is homogeneous. Ability grouping is fine in theory, but it does not reflect the real world, where all different kinds of persons live, work, cooperate and share together. Ability grouping goes against the grain of American ideals and democratic principles as it cannot help to develop well-rounded citizens with good character and a deep belief in the democratic way of life. Students are not only set apart from each other, they are also set above or below each other. The student in the fast section develops a superiority complex and the student in the slow section develops a defeatist attitude. Discipline problems result,

---

[39] Ibid., pp. 128-129.

[40] Stanley J. Urevick, "Ability Grouping-Why Is It Undemocratic?" The Clearing House, XXXIX (May 1965), pp. 530-532.

as experience indicates, and the lower the group the more the problems. In the grouping system the slower groups receive the slower education, and the faster students receive the faster education, with each group reinforcing its own shortcomings. A true class system is in existence, and it in no way reflects the democratic spirit of our country. The undemocratic attitudes established by the slow students in school are carried into their adult life, and transmitted to their children. This is detrimental to our national spirit. All children should get a quality education. This can best be achieved by returning to heterogeneous grouping for classroom instruction. Students learn from each other, and both fast and slow students have something to give. Intellectual knowledge is one aspect of development, but personal and social knowledge is equally as important in life. Often the bright students can learn patience, understanding and compassion from a slow student. In heterogeneous grouping all members have something to contribute to one another. All children deserve educational opportunities, and all need them. After high school some students will excel, others will show they are more able in certain tasks, others will be ordinary good citizens. High School is not the time to tell them they will or will not get very far in life, that they just do not have what it takes. Talents, interests, abilities develop at different rates. We cannot afford to risk our nation's future on an ability system. The principles of democratic living and learning how to implement them should be an important result of our educational system.

Urevick is answered by Hall[41] who maintains that "Ability Grouping Is Democratic," and that it is the practice of democracy. According to Hall we

---

[41] Alice Hall, "Ability Grouping Is Democratic," The Clearing House, XL (November, 1965), pp. 159-160.

live in a competitive society and there is room for student competition within the classroom. Her interpretation of the democratic ideal is that each individual student will have equal opportunity for the education that is best for him, and to group students heterogeneously would be socialism. The difficulty of arranging the students homogeneously is worthwhile only because of the advantage of providing a tailormade education for the individual. This avoids placing students in classes where they cannot read the text, and causing others to be bored because they have already covered the material on their own. In homogeneous grouping, reasonable and attainable goals are set for the students, and they are encouraged to learn.

> The main purpose of a secondary education is to transmit our culture to the next generation of our citizens. With as much knowledge and reasoning ability as students can acquire, they will then stand a better chance of being 'well-rounded citizens with good character and a deep belief in our democratic principles.'[42]

Discipline problems are to be expected with slower students regardless of the group in which they are placed, because they have difficulty in reading, socializing and understanding the basic concepts of education. These students need to be helped as they go at their own pace. Students are relieved to have books they can read and understand. Each student deserves the opportunity to learn all he can, and as he develops and his progress speeds up he should be moved from one group to another. "Ability grouping allows equal opportunity for each child regardless of race, color, creed, or physical age. Why not be truly democratic?"[43]

---

[42]Ibid., p. 159.

[43]Ibid., p. 160.

Howell[44] presents the results of a study which took place at Penfield High School in New York. The study was undertaken to substantiate the belief of the school faculty in grouping of honor or talented students. The subjects were ninth grade honor students selected on the basis of I.Q., achievement test results, eighth grade final examinations, recommendations of guidance counselor, psychologist, and classroom teachers and a letter of permission from parents. All members of the honor group were members of the honor classes in English, social studies, Earth Science and mathematics. A comparative heterogeneous group was also studied without the knowledge of their teachers so that controls would be as normal as possible and the students would not receive any special instruction. Final test marks for both groups were skewed toward the upper end of the distribution, with those of the honor group definitely being higher. In addition to the conclusion in favor of grouping for academic achievement and enrichment, the study also indicated favorable effects in the area of personal and social development. The following comments were given after five years of study:

1. It is not undemocratic to group talented students together for optimum achievement. This gives them a more realistic view of their abilities.
2. It has not lead to conceitedness or snobbishness on the part of the pupils in the honor group.
3. Students in the honor groups are not deprived of association with the typical average student, their peer group.
4. We have observed very few cases of grouping causing tensions because stamina of most gifted students is about average. Most of them profit from this initial stimulation.
5. An alert teacher, willing to go the extra mile necessary in teaching the talented, will find time to add the enrichment materials so necessary in the development of our gifted.

---

[44] Wallace J. Howell, "Grouping of Talented Students Leads to Better Achievement in the Secondary School," The Bulletin of the NASSP, XLVI (March, 1962), pp. 67-73.

6. At the record hops on Friday nights, the gifted participate
   in the 'twister' right along with the typical and average.
   In other words, their social development is not neglected
   by being so grouped.[45]

Sheehy[46] presents a line-up of research for and against homogeneous group-

ing, a subject which has been receiving concern since 1899, if not before. At

the same time that research claims that homogeneity is more apparent than real,

that techniques used for measurement are inadequate, that speed is not neces-

sarily more important than learning, and that actual harm to children's self-

concepts results from such a method, there is a growing tendency toward ex-

tension of the grouping process. Some evidence has been found that students

grouped homogeneously do better in academic subjects than those grouped hetero-

geneously, and that the greatest relative effectiveness is with the dull

children, less with the average and least with the bright. Insignificant dif-

ferences have been found between ability and non-segregated groups. In life

itself people of different talents, interests, accomplishments live together

side by side, quite heterogeneously grouped. It has been noted that homoge-

neous grouping has lead to stereotyped and stratified school roles that prevent

children from developing healthy social relationships and wholesome self-

concepts. Homogeneity is really an illusion, as although it may exist in one

skill it quickly ceases to exist in face of another skill, and heterogeneity is

present. Grouping of some form is essential in education. "But to face each

---

[45]Ibid., p. 73.

[46]Sister Gregory Sheehy, S.C.L., "Homogeneous Grouping: A Dangerous Pro-
cedure," Catholic Educational Review, LXV (February, 1967), pp. 114-117.

group as essentially heterogeneous may be the way to keep the homogeneity down to a flexible minimum."[47]

Dyson conducted "A Study of Ability Grouping and the Self-Concept"[48] with students from two schools, one in which grouping was heterogeneous and the other in which it was homogeneous. Results indicated that, regardless of the grouping procedures used, the high achievers reported significantly higher academic self-concepts than the low achievers. In regard to the acceptance of self both high and low achievers seemed to be about evenly divided between positive and negative concepts. There was no significant difference between self-concept reports of high and low achieving students in either school. The author concluded that in dealing with factors which effect self-feelings one grouping procedure is no more effective than another. Academic achievement, success and failure, peer group relationships, psychological environment of the school, administrative practices, curriculum, teaching methods, personality of the teacher, socio-economic characteristics, and self-attitudes, all form part of the complex interrelationships which effect the self-feelings of the pupil. Consideration of how students could best be grouped would do well to study the many areas involved and seek the solution most appropriate for the specific situation.

> The work reported here does, however, reemphasize the
> importance of success in the learning situation as a con-
> tribution to positive psychological growth and it indicates
> that this feeling of success is probably more crucial in
> its effect on the student self-concept than how an individual
> is grouped for instruction...the constant goal (of schools)

---

[47] Ibid., p. 117.

[48] Ernest Dyson, "A Study of Ability Grouping and the Self-Concept," The Journal of Educational Research, LX (May-June 1967), pp. 403-405.

must be to maximize in every way possible a feeling of acceptance and accomplishment each day for each student.[49]

Elden speaks of the effects of stratified secondary education on adolescents in England.

> Presumably assignment to a low-status school or to a low academic stream within a school affects a British youth's public esteem which, in turn, affects his private self-esteem. Typically, youth who have a low opinion of themselves as students perform in accordance with that self-assessment. Since low self-esteem is associated with anxiety, defensiveness, low achievement, and low future aspirations, the consequences of the eleven-plus failure and of allocation to streams within the grammar and modern school are likely to be substantial. The enduring consequences of being typed as a failure during childhood are revealed in the experience of the head of one comprehensive school in Western England: 'after extensive inquiries, I have not found any pupil who failed the eleven-plus who has overcome his sense of inferiority at this failure, irrespective of his performance even at the university level.' In addition to the psychological harm produced by the eleven-plus, this selection procedure contributes little toward developing every youth's ability to the fullest capacity.[50]

It is important to try to avoid labeling youth. There are many who today are slow, ordinary or even delinquent because they were pigeonholed that way in their impressionable youth and even now expect no more of themselves because no more was ever expected of them.

Schrank[51] studied one hundred enlisted airmen to determine whether assigning ability-level labels to randomly grouped mathematics class sections has any effect upon academic achievement. The term labeling effect as used by Schrank

---

[49] Ibid., p. 405.

[50] Glen H. Elden, Jr., "Life Opportunity and Personality: Some Consequences of Stratified Secondary Education in Great Britain," Sociology of Education, XXXVIII (Spring, 1965), pp. 184-185.

[51] Major Wilburn R. Schrank, "The Labeling Effect of Ability Grouping," The Journal of Educational Research, LXII (October, 1968), pp. 51-52.

means the effect on academic achievement of giving ability labels to groupings of pupils. The experiment showed that such effect does exist. The effect could be the result of the pupil's perception of his role in a given group or the teacher's perception of the abilities of the members of the group reflected in the grading standards and also in the teaching methods. In all but three of the sections studied it was found that the higher ability-level labeled section achieved a higher means than the next lower labeled section. The results indicated that there is definitely a labeling effect which was present in simulated ability grouping even though the grouping was actually random. This effect upon academic achievement is probably also present in actual ability grouping. This would indicate that for a standardized course of study, a student placed in a lower ability group is academically handicapped for as long a time as he remains in the group, and a student placed in a higher-label ability group is really receiving preferential treatment.

Woodring responds to those who object to ability grouping as being a means of segregation and of leading to the establishment of an intellectually elite group within our culture. Ability grouping is currently a widely accepted system of school organization, but there are some educators, and lay citizens, who object to such implementation. Some call ability grouping a form of segregation. Woodring answers that separation on an ability basis for periods of instruction will not deprive anyone of his natural rights, and mentions that all kinds of students who have the same general capacity for learning a subject can study side by side and can even learn from each other. The notion that ability grouping will lead to an intellectually elite is an illogical fallacy. The purpose of ability grouping is to provide better learning situations for fast, average and slow learners. Americans are simply not the kind of people

who have a culture which would be conducive to an intellectually elite -- other aspects of life have higher places on our value scale.[52]

The Educator's Encyclopedia[53] contains a practical presentation of grouping. It describes heterogeneous grouping as being favored by many educators because it places the student in a situation where he works with some others like himself and some who are different from him, which places him in the type of atmosphere he will meet in adult democratic life. Other educators prefer a type of homogeneous grouping, which is grouping on the basis of a specific similarity.

> It is generally conceded that true homogeneity in grouping is impossible, since individuals are more different than they are alike. When one similarity is selected as a basis for grouping the differences in other areas still must be provided for by the teacher. Homogeneous grouping is homogeneous only as far as the characteristic of the assigned child is concerned.[54]

Mental ability is one characteristic, and it alone does not indicate that students will be alike even in that since motivation, social and emotional development and other factors of nature and nurture may combine to make them completely different. These ideas offer support to some of those which suggested this study, specifically that of the heterogeneity among students in homogeneous grouping.

Among comments on individual differences in the Encyclopedia of Educational Research it is mentioned that while individual differences are both real

[52] Paul Woodring, "Ability Grouping, Segregation, and the Intellectual Elite," School and Society, LXXXVII (April, 1959), pp. 164-165.

[53] The Educator's Encyclopedia, Edward M. Smith, Stanley W. Krouse, Jr. and Mark M. Atkinson (New Jersey, Prentice-Hall, Inc., 1961), pp. 71-72.

[54] Ibid., p. 772.

and important they are not nearly as great as is commonly supposed.[55] Statistical analysis of human traits has shown that there are special and general abilities in which individuals vary from one another, and that an individual is closer to the average in total mental ability than he is in specialized abilities. In a typical school population with a narrow age range there will be marked variations in mental abilities, school achievement, interests, personality, motor skills and other human characteristics and achievements. The human organism is the product of nature, and nuture.[56] No two human beings are exactly the same in their hereditary factors and their environmental factors. No two develop under exactly the same influences. Identical twins share the same genetic make-up, but even living in the same place does not control their environmental influences. Elsewhere in this source a distinction is presented between homogeneous grouping and ability grouping.[57] The first is termed a classification according to needs, interests and purposes. The latter has a narrower meaning and refers to grouping on the basis of ability to do the work and with the aim of improving classroom instruction. This distinction is probably an academic one as far as the practical use of the terms is concerned today.

In a more recent edition of the Encyclopedia of Educational Research the controversial issue of the grouping of students for instructional purposes is

---

[55]Encyclopedia of Educational Research, ed. Walter S. Monroe (revised edition) (New York: Macmillan Company, 1950), p. 565.

[56]Ibid., p. 1168.

[57]Ibid., 1267.

discussed.[58] Regardless of the pattern established for grouping, the teacher is still faced with the problem of individual differences within the classroom. The terms homogeneous grouping and ability grouping are distinguished. Homogeneous grouping is the broader term of which ability grouping is a part. Ability grouping is an attempt to divide the students within a class according to their ability. More than twenty criteria, singly or in combination, have been used as bases for establishing classroom grouping. The social desirability and academic advantage of ability grouping are questioned. Evidence, of limited value, slightly favors ability grouping in regard to academic achievement. Dull children seemed to profit more than the brighter ones. The brighter ones profit when they are encouraged to accelerate their work and cover more material at a faster rate. Teachers seem to prefer some type of grouping in preference to random placement of students. The question is raised as to whether teachers consider a group of similar ability a kind of Utopian situation where undifferentiated teaching methods and contents can be applied to the differentiated, "homogeneous" group.

In a further article this same source[59] cites the concentrated efforts of educators at specific levels of ability. Prior to World War II there was much emphasis on the slow learner with little attention given to the average and gifted. Since the war there has been a shift to concern for the intellectually gifted. These are students to whom we must look for leadership in the arts and humanities, as well as in the sciences and technology. Ways of meeting the

---

[58] Encyclopedia of Educational Research, ed. Chester W. Harris, Third Edition (New York: Macmillan Company, 1960), pp. 223-224.

[59] Ibid., p. 189.

needs of the gifted are enrichment, grouping and acceleration. Further

research is needed to determine the real effectiveness of these measures.

Sears and Hilgard speak of an unusual type of grouping - according to the

purposes of the teachers.[60] Teachers find some students more "teachable" than

others. When a class is grouped according to the purposes of the teacher the

teacher is inclined to be more satisfied with the class, to like her students

better and to give them higher grades. The pupils, for their part, are more

manageable, more orderly, more cooperative and more satisfied with the class.

Students tend to like each other better and to form a more unified group than

those not selected in this way. The achievement of the student depends upon

the purposes of the teacher. If the teacher desired achievement the groups did

better, if the teacher did not have achievement as a central goal the students

did not do as well in achievement.[61] Teacher behavior and teacher-student

interaction have a strong effect upon the pupils. Interaction is effective,

evaluative and cognitive.[62] While the child's personality affects ability to

learn in particular situations, the teacher's personality influences teaching

effectiveness. The teacher is someone the students look to as a type of model.

Although a teacher may not be able to make any major personality changes, an

increase in self-awareness would probably be helpful in avoiding extremes of

---

[60]Pauline S. Sears and Ernest R. Hilgard, "The Teacher's Role in the
Motivation of the Learner," in Theories of Learning and Instruction, Sixty-
third Yearbook of the National Society for Study of Education, ed. Ernest R.
Hilgard (Chicago: University of Chicago Press, 1964), p. 182.

[61]Ibid., p. 192.

[62]Ibid., p. 209.

unfavorable influence on students.[63]   Problems of motivation and achievement

cannot be divorced from problems of personality.

> A classroom is a social situation with a power structure, in-
> cluding peer relationships, and adult-child relationships,
> hence the most favorable motivational conditions need to take
> all of these factors into account, recognizing that the teacher
> is both model and reinforcer and in ways not freely understood,
> a releaser of intrinsic motives.[64]

The messages of these authors indicate clearly that there is a real need

for further study and deeper experimentation regarding the subject of ability

grouping and its effects on our students and society. No one seems to have the

answer, but several are seeking for it.

Personal Orientation Inventory

Since the Personal Orientation Inventory (POI) is of comparatively recent

origin there is not much published literature available concerning it. It has

been included in the work of several unpublished doctoral dissertations and

masters theses. Judging from the abstracts none of these seemed to be relevant

to the present study.

In the paper[65] which he presented at the Western Psychological Association

meeting in 1963, Shostrom described and explained the Personal Orientation In-

ventory and acknowledged the influence, encouragement and assistance of Dr.

Abraham Maslow in its construction. Maslow developed the idea of the self-

actualizing person--a person who is more fully functioning and living a more

---

[63]Ibid., p. 209.

[64]Ibid., p. 209.

[65]Everett L. Shostrom, "An Inventory for the Measure ment of Self-
Actualization," Educational and Psychological Measurement, XXIV (Summer, 1964),
pp. 207-217.

enriched life than does the average person.[66] This type of person has been

suggested as a possible goal for the process of psychotherapy. The POI was

designed to give the therapist and patient a positive approach to the thera-

peutic process by providing a measure of the current level of positive health

or self-actualization of the patient and by suggesting directions for growth

toward fuller functioning.

The POI was developed consisting of 150 two choice comparative value

judgments. Items were selected from observed value judgments of both clini-

cally troubled and clinically healthy patients. They were derived from the

experiences of therapists at the Institute of Therapeutic Psychology and many

humanistic, existential and gestalt therapy writers. Items were derived from

the writings of Perls, Maslow, May, Angel and Ellenberger, Fromm, Horney,

Rogers, Riesman, Watts and Ellis. The value orientations reflected in the test

items are those which are commonly held to be significant to one's approach to

living. Value items on the test are stated twice so that both ends of the

dichotomy in question are explicitly clear. By test-retest methods reliability

coefficients of .91 and .93 were established before validation studies were

initiated. The test was administered to "normal" adults and to patients in

varying stages of therapy. Results indicate that the inventory discriminates

between self-actualized, normal and non-self actualized persons. The dimen-

sions of the test which seem to distinguish the three types of people are

freedom from social pressures, time competence, self-support, and synergy.

There was a significant difference between the scores from the self-actualized

---

[66]Ibid., p. 207.

and non-self-actualized groups. Further research is recommended to determine whether the test does measure growth toward self-actualization.

Shostrom and Knapp[67] discuss a study comparing results obtained on the MMPI, a measure of pathology, with those obtained on the POI, a measure of positive mental health. Previous research has suggested that the POI could be used alone or with the MMPI to evaluate progress in therapy. In the study under discussion the subjects were beginning and advanced therapy patients. The MMPI and POI were administered to all. Results indicated that in general the more advanced therapy groups may be expected to score higher on the POI and lower on the MMPI. It is suggested that the two scales measure different areas. The closest relationships were found with the POI scales and with the MMPI Si scale. The Si scale is not considered to be a clinical scale as the other MMPI scales are, but rather one which is frequently used in counseling and guidance. Its correlation with the POI scales gives support to the claim that the POI measures attributes which are important in interpersonal relation-ships among normal people. It was found that some advanced therapy patients who scored toward self-actualizing on the POI also scored high on the MMPI K scale, thus suggesting efforts to appear self-actualizing. However, in general it can be said that, as therapy advances, pathology as indicated by the MMPI decreases and health as indicated by the POI increases. These results suggest concurrence with Shostrom's assumption that values are taught in therapy,

---

[67] Everett L. Shostrom and Robert R. Knapp. "The Relationship of a Measure of Self-Actualization (POI) to a Measure of Pathology (MMPI) and to Therapeutic Growth," American Journal of Psychotherapy, XX (January, 1966), pp. 193-202.

values such as those measured by the POI. The question remains as to whether

the values are to be made explicit or implicit.

Dandes[68] made a study of the psychological health of teachers and their

effectiveness in the classroom. Society claims to value the principles of

democracy and the worth of each individual, yet often our schools seem to be

more important than the students within them. The growth of the individual

society's claim to value is often inhibited by our educational practices. Part

of the reason for this inconsistency may be traced to inadequacy of understand-

ing of goals and methods and of inadequate teacher training, where knowledge

of subject and method are stressed to the neglect of personality development.

In this study the POI was used to measure psychological health. Teacher atti-

tudes and value dimensions were measured by four other instruments: permis-

siveness or warmth of student-centeredness by the Minnesota Teacher Attitude

Inventory; authoritarianism by the California F-Scale; openness-closedness of

belief systems by Dogmatism Scale and liberalism-conservatism of educational

viewpoints by An Inventory of Opinions on Educational Issues. Packets contain-

ing these instruments were distributed to teachers of two central school sys-

tems at faculty meetings. Participation was voluntary. Each attitude and

value measure was correlated with each POI scale. Correlations substantiated

predictions. A positive relationship was found to exist between psychological

health and teachers permissiveness and between psychological health and

liberalism of educational viewpoints. A negative relationship was found be-

tween psychological health and authoritarianism and dogmatism. Results

---

[68]Herbert M. Dandes, "Psychological Health and Teaching Effectiveness,"
The Journal of Teacher Education, XVII (Fall, 1966), pp. 301-306.

indicate that the greater the psychological health, the greater the presence of values and attitudes characteristic of effective teachers. The more effective teachers are those who are more psychologically healthy or self-actualized. College courses should be included in the education of teachers which will help them to develop psychologically so that they will be better prepared to encourage the growth of their students and help them to become effective, responsible and free members of society.

Leib and Snyder[69] studied the self-actualization of 28 under-achieving college students. The students voluntarily withdrew from their basic psychology class, Reading and Study Methods, to participate in a "special" course designed to meet their needs. Hence these "selected" students were conscious of a sort of special attention throughout the semester. The students were divided into two groups according to their scores on the support scale of the POI which indicated the pretest level of self-actualization. One group had a group leader who established a democratic atmosphere and tried to stay in the background so that the burden of the class fell on the discussion between members of the group. The other group received the material by the lecture method with times for questions and answers. The POI was given to all students who had attended at least 75% of the class meetings. Pretest and post-test scores were compared. All students improved in self-actualization as measured on the POI and in grade point average. Whether these results were actually the outcome of the special division and the treatment received in the two groups as "Special" students or some other factors such as attempting to choose desirable

---

[69] Jere W. Leib and William U. Snyder, "Effects of Group Discussions on Underachievement and Self-Actualization," _Journal of Counseling Psychology_, XIV (May, 1967), pp. 282-285.

responses in order to please the instructor or themselves, offers suggestion for further research.

After administering the POI to 48 college students on two occasions, Klavettes and Mogar[70] concluded that the three scales of inner directedness, time competence and self-actualizing values accounted for almost all the variance in their study of stability and intercorrelation, and that the POI could be reduced to fewer dimensions.

Culbert, Clark and Bobele[71] reported on a study of two groups of university students and their performance on the POI before and after undergoing sensitivity training for fourteen weeks as part of their academic program. Results indicated on the first administration that one group was at the level of self-actualization. The scores of this group did not change significantly in the second administration. The other group was slightly above the normal adult level and somewhat below the level of self-actualizers before the therapy sessions. They found significant changes in the scores for this group on inner directedness, spontaneity, synergy, and capacity for intimate contact scales. Further research, particularly through longitudinal studies, is recommended in using the POI.

---

[70] Robert E. Klavettes and Robert E. Mogar, "Stability and Internal Consistence of a Measure of Self-Actualization," Psychological Reports, XXI (October, 1967), pp. 422-424.

[71] Samuel A. Culbert, James V. Clark and H. Kenneth Bobele, "Measures of Change Toward Self-Actualization in Two Sensitivity Training Groups," Journal of Counseling Psychology, XV (January, 1968), pp. 53-57.

Foulds[72] describes the POI as an attempt to identify the self-actualized person who is more fully functioning than the average or below average person by providing a comprehensive measure of values and behavior believed to be of importance in the development of self-actualization, personal adjustment, adequate functioning, or positive mental health. These terms are used synonymously by Shostrom. Findings of research suggests that the inventory is a reasonably valid and reliable instrument for measuring psychological well being, personal adjustment, freedom from neurotic symptoms and self-actualization. Foulds used the inventory as a measure of the personality correlates of ability to communicate facilitative conditions during counseling. The subjects were 30 graduate students who submitted one tape each of a counseling session of their choice. Students were rated for empathic understanding, respect, genuineness, and positive regard and these ratings were compared with their POI scores. Results indicated that ability to communicate empathic understanding was related to 6 of the 12 POI scales, ability to communicate genuineness was related to 10 of the scales and 6 of the POI scales were significantly related to total conditions offered. There was no significant relationship between POI scales and the ability to communicate respect or positive regard. Results suggest that inclusion of experiences which would facilitate personal growth and self-actualization may be profitable in counselor education programs. The need for further research is indicated to replicate the findings and to determine if the same results would be found for experienced as well as for beginning counselors.

In general, it seems that further research is needed on the POI with a variation in the ages and types of subjects.

CHAPTER III

PROCEDURE

Three concerns lead up to the decision to do some kind of an investigation
of student personality traits in relation to homogeneous grouping. During ex-
periences of several years of counseling high school girls there has evolved a
deepening realization that many of the problems of today's adolescents do in-
deed stem from a failure in communication between themselves and adults. This
weakness seemed to be largely the product of the inability of adults to under-
stand youth, which in turn, seemed to result from a real lack of knowledge
about how adolescents really think and feel about themselves, about others,
about the future and about the objective world surrounding them. The second
element of concern was caused by awareness of the great consciousness of
students in regard to their curriculum grouping. Hardly a day has passed in
which at least one girl has not referred to the fact that she was in honors, or
a middle group, or the basics, etc. In fact, nearly every student seems to
identify herself with her curriculum sometime during the interview, regardless
of the content of the interview. It is almost as though she had accepted and
solidified herself in the designated pigeonhole which had become a part of her
personal identity. Her expectations of herself seem to consciously coincide
with those she thinks her teachers hold. On occasion, a girl does feel
misplaced and asks to be moved into a higher or lower section. Lastly, the
students seem to be absorbed with the idea of self-fulfillment, doing one's

"thing," achieving potential, being real, finding self, knowing oneself. It seemed timely to select a topic for study from this area. Shostrom's new Personal Orientation Inventory provided the instrument.

The Personal Orientation Inventory (POI) was designed by Everett L. Shostrom to meet the need of counselors and therapists for a comprehensive measure of the values and behaviors which seem to be of importance in the development of self-actualization.

The instrument consists of 14 scales, 12 of which are commonly used in the measurement of the degree of self-actualization, the other two being used in ratio scores but their omission is recommended for correlational and other statistical analyses because of the statistical complexities of ratio scores.[73]

The ratio scores are two: time ratio and support ratio. The time ratio score is the result of the ratio between the time competence and time incompetence scales. This score measures the degree to which one efficiently uses time and distinguishes between the person who is past or future oriented and the one who is present oriented. The time competence scale is the one used in completing the profile.

The support ratio score is the ratio between the other-directed and inner-directed scales. It measures the degree to which a person is motivated from within or depends upon others for the major source of motivation. The inner directed scale is the one used for the profile.

---

[73]Everett L. Shostrom, Manual: Personal Orientation Inventory (San Diego, Californis: Educational and Industrial Testing Service, 1966), pp. 6, 15-21.

The remaining ten scales are grouped in twos under five headings:
valuing, feeling, self-perception, synergistic awareness and interpersonal
sensitivity.

Valuing is measured by the scales of self-actualizing value and existen-
tiality. The former provides an indication of the degree to which the person
shares the values of self-actualizing people. The latter indicates the ability
to react to present situations without rigidly adhering to principles.

The concept of feeling is measured by feeling reactivity, the sensitivity
to one's own needs and feelings, and spontaneity, the degree of free expression
of feelings in behavior.

Self-regard, feeling of self worth, and self-acceptance, and the degree
of accepting self regardless of weaknesses are grouped under self-perception.

Synergistic awareness includes (1) both synergy or the ability to see the
opposites of life as related and (2) the measure of attitudes toward the nature
of man.

Interpersonal sensitivity includes the ability to accept one's own feel-
ings of aggression or anger and the degree of capacity for intimate contact
and warm interpersonal relationships.

Since the intention was to obtain data from a cross section of the school
and it would be difficult to select an appropriate sampling because of the
great variation among the members of the student body, it was decided to pro-
vide the opportunity of participating in the study to all the students. This
did not seem to be taking too great a risk because of the large number of
students and because of a knowledge of the spirit of the girls.

An announcement was made to the student body that the counselor hoped to
do a study concerning the student body for her degree work. The girls were

asked to volunteer an hour of their study time during the following three weeks if they were interested in participating and if they were willing to take a personality test. This announcement took place a week previous to the planned days of administering the inventory. Three specific days were assigned for each grade during the next three weeks. Response from the students was most gratifying. Of the 1,323 students in the school, 1,299 participated in the study. Answer sheets of 28 of these were not accepted because of too many unanswered items, which left a total of 1,271.

When each group of students assembled an announcement of the purpose of the inventory was made and students were assured that all results would be kept confidential. Since many students had previously been subjects for experiments and studies of degree candidates who were not connected with the school, participation was not a new experience for them.

After completion of the administration of the inventory, answer sheets were placed into curriculum groupings (explained below) according to the division of the students for the year. All other data were collected according to this grouping pattern.

Answer sheets were hand-scored by three former students.

Personal data folders were consulted for compilation of data regarding nationality, residence, parental occupation, parental education and size of family.

Permanent record cards were used to obtain I.Q. scores and grade point averages and teacher personality ratings.

The purpose of compiling these items was simply to give an idea of the background of the subjects which would help in understanding them and their

heterogeneity in spite of their possible homogeneity of academic ability and achievement as measured in the school situation.

Each of the four grades is divided into ten curriculums. Due to the similarity of the curriculums as judged on the basis of I.Q. and GPA and for the sake of ease in handling the data, the curriculums were arranged into four groups for the purposes of this study. The grouping is as follows:

Group	Curriculum	Description
I	1	First honors
	2	Second honors
II	3	Above average ("honors" refused)
	4	Above average
	5	Above average
	6	Above average
III	7	Average
	8	Average
	9	Average
IV	10	Low average/Basic

In the case of ninth grade, curriculum 6 was included in Group III because these students belonged in an average group according to the criteria.

Results of the Personal Orientation Inventory were typed on IBM cards and processed at the Data Processing Center at Loyola University. A simple one-way analysis of variance was run at first to determine the existence of significant differences between groups. Since significant differences were indicated a t-test was run in order to pinpoint these differences.

T-scores were compared for each group in each grade for all twelve self-actualizing concepts of the POI. These are listed according to grade and concept in the chapter containing the presentation and analysis of results.

CHAPTER IV

BACKGROUND OF STUDENTS

Experience indicates that when high school teachers are assigned a class of students with similar mental ability and similar academic achievement they automatically equate such "ability grouping" with complete homogeneous grouping, they plan and execute their programs for the year accordingly. When a student lapses or excels, outside of the pattern, it is usually decided that something is amiss with the student.

In reality, the students in an "ability" group are not members of one solid homogeneous group. The following discussion is an attempt to point out some of the objective differences and similarities which influence the students within a group and have some part in making them distinct from other students in the same group. Items of influence mentioned will be the results of intelligence tests, grade point average, area of residence, nationality, size of family, education of parents, employment of parents and personality ratings of teachers. The information regarding each of these items is contained in either the student's personal data form or permanent record folder and is available to all members of the faculty for consultative reference. The personal data form has proved to be quite useful in helping teachers to better understand the student.

The school under study is a comprehensive girls' high school in suburban Chicago with an enrollment of 1,323 during the year of the study. Of the 1,323 girls in the school, 1,299 volunteered to participate in the study.

49

Students in each grade are assigned into one of the ten curriculum group-
ings on the basis of I.Q. and composite achievement scores as determined by the
high school placement test, achievement scores from eighth grade testing,
eighth grade report card marks, and recommendations of eighth grade teacher and
elementary school principal. The "honor" students are in the top two curricu-
lums. These students have willingly accepted a position in this program. All
take six subjects: English, Religion, Algebra, World History, Latin and
French. The next three or four curriculums, depending upon the type of records
the students have, are the "above average" groups. These students take only
one language and may choose Latin, French or Spanish. The next three or four
groups, again depending on the school records, are the "average" groups. These
students also may choose a language. Their choice is either French or Spanish.
The "basic" or "low average" group is a group which takes remedial reading in
place of a language. This group has special work in English, mathematics and
history. Members are frequently divided into two subgroups for more individ-
ualized instruction. Home economics, business and art programs have been
opened to them on an experimental basis, as has the possibility of being part
of a tutorial group in French. To these options the students respond favor-
ably. Their program has built in variations from those of the other nine
curriculums.

For the first two years the students remain largely with their curriculum
grouping for all school academic activities. They are hetergeneously grouped
for homeroom and, of course, free for their lunch periods. Changes are possi-
ble for those who are found to be misplaced on the basis of their achievement
and upon teacher recommendation or upon reasonable and well-founded student or
parent request.

During the junior year the students are grouped homogeneously only for English and history classes; during senior year only for English. After the first two years their interests branch out into the electives in science, mathematics, social studies, language art, business and home economics. In spite of the variation in subjects taken by the upperclassmen, the idea of their curriculum grouping remains strongly in their minds and they usually identify themselves with the curriculum. Those who have been changed from one to another will often say where they started and which way they have gone. No matter what is done to avoid any labeling of materials the girls use, they are quick to discover their places on the curriculum ladder. For some it creates a social class consciousness.

For the purposes of this study the ten curriculums are combined to make four groups for each grade. Group I of each grade is composed of the first and second honors curriculums. Group II contains four curriculums for grades 10, 11 and 12 and three curriculums for grade 9. These students are considered above average in ability and achievement. They include those who were offered a place in the honors group but stated a preference not to participate in that program as well as some of those who tested high in ability but did not have comparable performance. Group III is composed of three average curriculums for grades 10, 11 and 12 and four for grade 9. Group IV contains the low average or basic curriculum students.

The following comments contain information which indicates certain elements of heterogeneity among the students. These include I.Q. and grade point average (G.P.A.), nationality, residence, size of family, level of employment of father and mother, educational level attained by both parents, and teacher

ratings on personality traits. This data is presented for descriptive purposes only to give an idea of the type of students involved in the study.

I.Q. and G.P.A.

The mean I.Q. scores in Table 1 were computed from results of the Otis Quick Scoring Test of Mental Ability given during junior year for grades 11 and 12 and from the Scholastic Testing Service High School Placement Test given in January of the eighth grade for grades 9 and 10. Groups of superior, above average, average and low average ability groups resulted from the tabulation of the scores. Such clear cut differences are not so evident between the individual curriculums as they are in the combined groups.

G.P.A. is comparable to I.Q. scores in each group. Again, individual variations within and between curriculums are not evident in the large group tabulation.

This apparent correlation between I.Q. and G.P.A. would indicate that many of the students are working near to their capacity or above. Whether or not this is the case could be handled in another study similar to that reported in the "Working to Capacity,"[74] where this is considered the criteria for a good student.

Dice suggests that we reassess, reevaluate and reinterpret what we mean by intelligence.[75] She continues:

> We can no longer be content to measure and talk about a single thing we call intelligence which manifests itself in proficiency with books alone; there are intelligences and they

---

[74] Sister Helen Marie, O.S.F., "Working to Capacity," Catholic School Journal, LXII (March, 1962), p. 28.

[75] Kathryn L. Dice, "Unmet Needs of High School Students," Educational Leadership, XVI (December, 1958), p. 174.

TABLE 1

I.Q. AND G.P.A. FOR EACH GRADE AND GROUP

Grade	Group	N	IQ Mean	IQ SD	GPA Mean	GPA SD
12	I	65	127.86	4.57	4.40	.30
	II	124	116.31	4.71	3.61	.41
	III	93	105.35	3.59	3.10	.49
	IV	31	94.48	2.86	2.76	.28
	Total	313				
11	I	69	127.72	3.93	4.24	.51
	II	142	115.35	4.59	3.68	.59
	III	103	104.72	4.28	3.29	.44
	IV	30	91.00	4.24	2.63	.36
	Total	344				
10	I	58	130.45	8.16	4.42	.48
	II	135	115.30	7.41	3.75	.55
	III	85	108.65	5.55	2.99	.50
	IV	30	94.33	5.12	2.88	.47
	Total	308				
9	I	68	125.82	5.08	4.21	.56
	II	102	116.85	4.23	3.58	.60
	III	130	105.96	4.99	3.13	.61
	IV	33	97.00	4.26	2.95	.50
	Total	333				

manifest themselves in various ways - in technical pursuits, in
sciences, in art, in work, as well as in words. We owe it to
the students who come to school to us to know them, not only
as verbal students, but along all lines which it is possible
for us to consider and for which we can provide. This calls
too, for a more wholesome attitude toward their range of in-
dividual differences, rather than toward their lack of ability
within the narrow limits of a prescribed plan.

Here we have an appeal to consider the students as individuals and to try to
treat each as a person and not as simply as a member of the group.

Initial grouping into curriculum is based upon the results of the I.Q. and
composite scores of the high school placement test, eighth grade report card
marks, and recommendations of eighth grade teachers and elementary school
principals. The practice of using the composite score rather than the separate
subject area scores on the HSPT is in accord with Impellitteri's[76] suggestion
that perhaps the composite score is the best predictor of grades.

The use of intelligence test scores has proved to be of practical assis-
tance in most cases. Roberts[77] and Rochester[78] would perhaps question this
practice. The former fears that intelligence tests give an inaccurate estimate
of the student's ability, particularly in the case of bright children.
Rochester considers intelligence test scores as only slightly better than edu-
cated guesses in terms of prediction of success, and that all behavior related

---

[76]Joseph T. Impellitteri, "Predicting Academic Achievement with the High
School Placement Test," Personnel and Guidance Journal, XLVI (October, 1967),
p. 143.

[77]Helen Erskine Roberts, "Factors Affecting the Academic Underachievement
of Bright High School Students," Journal of Educational Research, LVI (Decem-
ber, 1962), p. 182.

[78]Dean E. Rochester, "Will the Real Over-achiever Please Stand Up?"
Newsletter Illinois Guidance and Personnel Association, XXII (Winter, 1967),
pp. 36-37.

to learning as well as the non-academic environment of the student should be considered.

Edwards and Wilson[79] in questioning the use of group intelligence tests for prediction prefer to consider prior academic success as the best predictor of future achievement. This opinion was confirmed by Russell[80]

> Grades in general have tended to do very well in comparison with other sources of data for use in prediction and it should not be assumed that this experience has applied only to those that have been issued by teachers employing only the purest traditional methods of classroom procedure. Sometimes a test will work better than grades, however the latter have tended over the years and on numerous studies to predict a little better than tests.

Williams and Cole[81] suggest an non-academic variable to be considered in the determination of academic success, that of self-esteem. In their opinion "few factors are more fundamental to a child's success and happiness than his evaluation and acceptance of himself. It is as important for the teachers to identify a lack of self-esteem and to do something about it, as it is for them to identify ability and achievement weaknesses." Fink[82] shared the viewpoint that self-concept is related to academic achievement as a result of his study in which he found that academic underachievers frequently obtain average or *above average scores on tests designed to measure intelligence.*

[79] T. Bentley Edwards and Alan B. Wilson, "Attitudes Toward the Study of School Subjects," Educational Theory, VIII (October, 1958), p. 275.

[80] James W. Russell, "The Mark of the Best," The Bulletin of the NASSP, XLV (February, 1961), p. 113.

[81] Robert L. Williams and Spurgeon Cole, "Self-Concept and School Adjustment," Personnel and Guidance Journal, XLVI (January, 1968), p. 480.

[82] Martin B. Fink, "Self-Concept as it Relates to Academic Underachievement," California Journal of Educational Research, XIII (March, 1962), p. 57.

above average scores on tests designed to measure intelligence. Taylor[83] and Roberts[84] present further considerations regarding the effect which feelings of personal worth have on academic achievement.

National Origin

Percentages given in Table 2 are based upon the information supplied by the students on their personal data forms. These are the nationalities with which the students identify themselves. A large percentage of the students are first or second generation American residents, and many come from homes where English is still a foreign language. As the spread of Table 2 indicates, national homogeneity does not exist in any of the groups. The predominant nationalities (in descending numerical order) of Irish, Italian, German, Polish and Bohemian offer an interesting variety. The differences inborn here present a challenge to any teacher. Knowledge of these differences, and the strong national ties felt by many of the students, should help the teacher to react with understanding when the group does not appear homogeneous.

Residence

In "Suburbia's Totem Pole,"[85] de Vise ranks 166 suburbs on purely economic terms. He took into account median family income, median home value and per capita real property valuation. Table 3 presents the percentage of students living in each area as listed by de Vise. The list of 166 suburbs was divided into groups of 20 and the percentage cumulatively tabulated for each

---

[83]Ronald G. Taylor, "Personality Traits and Discrepant Achievement: A Review," Journal of Counseling Psychology, XI (Spring, 1964), p. 81.

[84]Helen Erskine Roberts, op. cit., pp. 175-183.

[85]Pierre de Vise, "Suburbia's Totem Pole," Chicago Daily News (Monday, May 8, 1967), p. 46.

TABLE 2

NATIONAL ORIGIN
(Percentages)

Nationality	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Afro-American							3						1		1	3
Austrian		1	1			1					3					
Belgian						1		1								
Bohemian	9	7	8	16	12	6	10		9	5	7	7	4	6	1.5	3
Czech	1	1	2	3	2	1		3		3			4	1	1.5	
Croatian	1	1		3	3	1							1			
Dutch								1								
English	1	1	2		2	1	10	7	2	1		3	3	5	2	6
Finnish	1															
French	1	1			2		1			1				3	1.5	
German	12	22	19	16	20	17	18	30	12	19	11	14	19	18	18	6
Indian										1						
Irish	37	25	32	7	19	28	16	20	43	25	39	28	19	21	20	21
Italian	12	19	21	42	8	15	20	20	13	20	19	48	18	11	30	37
Lithuanian		3	2		2	3			3	6	3		4	5	3	
Spanish Descent		2	1	3	1	1	1	3		3	1			2	5	6
Norwegian						2		2					1	1		
Polish	23	13	10	10	25	21	20	10	14	15	17		22	21	13	18
Russian		2	2												3	
Scotch									2						1	
Slovak	2	2			2	2	1		2	1			3	3		
Swedish					2			3					1		1.5	
Yugoslavian															1	

TABLE 3

RESIDENCE OF STUDENTS
(Based on Economic Rank.[a])

Rank Order and Median Family Income	Percentage of Students															
	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
A. 8-19 ($17,320- 13,340)	3	1	2	3	1	3	2	0	2	0.7	0	0	0	1	0	3
B. 21-28 ($15,440- 13,340)	3	1	5	3	3	5	5	7	5	2	5	7	2	2	4	0
C. 41-59 ($11,550- 10,290)	63	48	56	39	52	50	47	53	50	53	53	50	65	57	56	43
D. 67-77 ($10,500- 10,290)	5	15	8	10	9	9	14	10	9	13	10	3	7	7	6	15
E. 81-99 ($9,450- 9,030)	25	30	29	45	31	30	30	27	22	30	29	37	24	29	32	30
F. 105-147 ($9,240- 8,920)	0	1	0	0	0	0	0	0	0	0.7	1	0	0	0	0	3
Unincorporated	0	2	0	0	3	3	1	3	2	0	2	0	2	1	1.5	0
Chicago	1	2	0	0	1	0	1	0	0	0.7	0	3	0	3	0.5	6

[a]As listed by Pierre de Vise, "Suburbia's Totem Pole," Chicago Daily News, Monday, May 8, 1967, p. 46.

group. The largest percentage of students for each group reside in areas in the 40-59 and in the 80-99 brackets, with a smaller number in the 60-79 bracket. The majority of students, who come from thirty-six suburbs and Chicago, live in areas ranging from 41-99 on the economic status listing. Very few students reside in the 100-166 groups and a slightly larger number reside in the 1-39 group. This indicates that the majority of the students in all curriculum groups come from middle class neighborhoods with a median income range between $9,030 and $11,550.

Size of Family

The number of children in the families of the students ranges from one to fifteen as is indicated in Table 4 which gives the percent in each group with the number of children in the family. This record gives no indication of proof for the often-heard statement that the brighter students come from the smaller families. In fact in Group I of Grade 11 no student comes from a family of fewer than three children. With this exception in mind, we can see that the percent of children in families per group is rather evenly distributed and there is real variation within each group. An additional factor affecting the students in each curriculum is the position of the student in the family. Whether the student is the oldest in the family, the oldest girl, the youngest, the middle, or the only girl (as one honor student is who has eight brothers) can make a difference in her formation, her outlook and in her reactions to other persons, things and situations. This table indicates that the girls are heterogeneous in regard to family size.

TABLE 4

SIZE OF FAMILY
(Percentage of Siblings)

Number	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	8	7	8	10	0	6	9	3	7	7	5	13	5	6	5	6
2	8	27	30	23	0	25	25	13	22	26	21	17	19	25	24	18
3	25	22	22	32	6	25	26	13	10	25	20	17	19	26	25	30
4	28	16	14	16	30	21	17	30	26	20	24	30	26	15	15	15
5	15	13	12	10	15	8	10	0	16	7	7	10	12	13	15	12
6	6	10	9	6	22	5	6	28	9	6	11	7	12	7	5	12
7	3	2	4	0	12	5	2	10	5	4	6	3	6	4	5	6
8	5	1	0	0	4	0	3	0	0	1	1	3	0	1	3	0
9	1	2	0	0	3	2	1	3	3	2	4	0	0	2	1	0
10	0	0	1	0	3	1	1	0	0	1	0	0	1	1	0	0
11					4	2	0	0	0	1	1	0	0	0	2	0
12					1	0	0	0	0	0	0	0				
13									2	0	0	0				
14	1															
15				3												

Note of interpretation: In Grade 12, Group I, 8% of the students have 1 sibling; 8% have 2 siblings; 25% have 3 siblings, etc.

Occupational Level of Parents

The rating of occupations by Warner, Meeker and Eells[86] was used in the classification of the occupations of the parents of the students.

Level I includes professional occupations such as those of the doctor, lawyer, dentist, engineer and architect. Also included in this level are owners and managers of large businesses (valued at $75,000 and over), regional and divisional managers of large corporations and industries and certified public accountants. Only a small percentage of students have parents in this category.

Level 2 consists of high school teachers, nurses, librarians, owners and managers of businesses valued between $20,000 and $75,000, assistant managers of large businesses, accountants, salesmen of real estate and insurance. A large number of parents hold occupations in this level than on Level I.

Level 3 includes social workers, grade school teachers, owners and managers of businesses valued between $5,000 and $20,000, minor officials of businesses, auto salesmen, bank clerks, secretaries to executives, justices of the peace and contractors.

Level 4 includes owners and managers of businesses valued between $2,000 and $5,000, stenographers, bookkeepers, sales people in department stores, factory foreman, dry cleaners, butchers, railroad engineers and conductors.

Level 5 consists of owners and managers of businesses valued between $2,000 and $5,000, dime store clerks, beauty operators, telephone operators, carpenters, plumbers, electricians, timekeepers, lineman, telephone,

---

[86]William Lloyd Warner, Marchia Meeker and Kenneth Eells, Social Class in America (New York, Harper and Bros., 1960), pp. 140-141.

television, telegraph, radio repairmen, medium-skilled workers, barbers, firemen, policemen, practical nurses, bartenders, cooks in restaurants and tenant farmers.

Level 6 includes owners and managers of businesses valued at less than $2,000, mounders, semi-skilled workers, baggage men, night watchmen, taxi and truck drivers, gas station attendants, waitresses in restaurants.

Level 7 includes heavy laborers, migrant workers, odd job men, scavenger collectors, janitors, scrubwomen.

In each group in each grade the levels of occupation in which the fathers are engaged ranged from 1-7, with the majority being in the 3, 4, 5, or 6 levels. Many of the fathers are employed at various levels in the large factories in the suburban area.

Occupations are listed for fathers who are deceased or retired as well as those currently employed for all students who supplied the information.

Less than 35% of the mothers work full time. They are employed primarily at the levels of 3, 4, 5, or 6 also with the heaviest concentration on 4. Some of the mothers work part-time in the home, as beauticians, babysitters, typists, and those employed by answering services. Some are employed part-time out of the home as salesladies and office workers and some help their husbands in businesses but the majority of the mothers remain at home to care for their families.

The accuracy of the assignment of levels may be questioned somewhat. Student reports of father's or mother's employment used terms which were not sufficiently self-explanatory for accurate categorization. Familiarity with the students and their families helped to clarify some of the doubts which would arise, but complete accuracy is not claimed.

TABLE 5

LEVEL OF OCCUPATION[a]
(Percentage)

Father

Level	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	8	3	0	0	3	6	6	3	9	4	4	0	16	1	2	3
2	14	9	6	0	10	13	8	6	22	7	2	10	25	19	14	3
3	22	24	27	35	35	20	26	17	26	31	35	20	28	32	26	9
4	9	22	19	10	19	15	11	17	21	15	8	23	10	5	7	3
5	35	22	31	32	19	27	22	27	3	22	24	23	7	25	24	30
6	9	10	8	0	6	13	21	30	5	11	19	13	10	12	18	39
7	3	2	0	0	0	4	1	0	0	4	4	7	0	6	3	6
No Response	0	8	9	23	8	2	5	0	14	6	4	4	4	0	6	7

Mother

Level	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	0	0.8	0	0	0	0	0	0	2	0	0	0	0	0	0	0
2	6	5	5	3	7	5	7	0	7	3	5	3	7	3	6	0
3	8	7	5	6	4	6	4	7	9	10	8	10	4	10	7	3
4	11	15	13	6	6	7	11	10	7	9	11	3	12	6	8	6
5	2	0.8	5	3	9	4	9	3	3	4	7	3	3	7	5	12
6	3	4	1	6	4	5	2	10	5	10	2	7	0	7	7	6
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Not Full Time	70	67.4	71	76	70	73	67	70	67	65	67	74	74	68	67	67

[a]Level as indicated by Lloyd Warner, Marchia Meeker, and Kenneth Eells, Social Class in America (New York: Harper Torchbooks, Harper and Brothers, Publishers, 1960), pp. 140-141.

Care must be taken about reaching conclusions regarding this data concerning occupational level and the distribution among the various groups. It is commonly believed that the higher the intelligence the higher the occupational level and the lower the intelligence the lower the occupational level. There are individuating circumstances in many of the families included here. These are probably not unique but they are definitely influential in this situation. First, the level of occupations of the fathers has in many instances varied within the past few years. Some fathers have received promotions and their occupational level has been raised. Others fathers belonged to companies which have closed or merged and they have been left without jobs and have found new occupations on lower levels than those in which they were originally employed. For some this has been a necessity because their age prevented them from being considered for new jobs at the same level of former employment. For others it has been a matter of forced choice as they have elected not to move their families to other states but rather to discontinue their affiliation with their previous employer. The wisdom of this choice in some instances can be evidenced by the number of schools in various cities such children have attended by the time they enter high school. The second point to consider is that in many instances occupational level is not correlated with parental ability. Low occupational level is due to lack of education in some instances. On the other hand there are fathers who, through hard work and self-education, have managed to become financially successful as owners of large businesses, real estate salesmen, and other occupations. The parents of several of the students were born in Europe and came to this country during or after the second world war. Many of these were forced to leave school to earn money to support themselves or their own families. It is lack of opportunity rather than lack of mental

ability which has determined the occupational level of these parents. One

example may illustrate this. In one family both parents were born in Europe

and came to the United States with a grade school education. They met here and

married. The father is employed at level 5 and the family lives in very moder-

ate circumstances. The son is now an M.D. One daughter is a teacher and the

other is an honor student at a large university. All three children had full

tuition scholarships for college, were eligible for a Federal Economic Oppor-

tunity Grant (E.O.G.) and worked for the rest of their expenses themselves.

Surely lack of ability is not the reason for their economic status.

This listing of the classification of occupations in Table 5 is sufficient

to add weight to the belief in the heterogeneity of the students within each

of the groups.

Education of Parents

The percentages of Table 6 indicating the top level of education obtained

by the parents again suggests the presence of heterogeneity in the background

of the students. Each group in each grade, with the exception of the fathers

in Group I of grade 10 have a range from those who did not complete grade

school or who have ended their education with the eighth grade to those who are

college graduates, with the exception of the mothers in Group IV of grade 12.

The better students, those in Groups I and II, do have a higher percentage of

parents who have graduated from college. There is no record given for at least

25% of fathers of students in Level IV of grades 9, 10, and 11.

After studying the tables of percentages it is evident that each of the

groups at each grade is composed of students who have a variety of backgrounds

and environmental influences. Surely if these non-academic facts are taken

TABLE 6

TOP LEVEL OF EDUCATION OF PARENTS
(Percentage)

Father

Level	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	2	7	8	10	6	9	4	10	0	6	9	3	1	4	6	18
2	6	10	16	39	6	7	9	17	5	13	13	13	4	12	13	12
3	32	39	38	45	33	39	48	30	29	36	44	40	37	36	38	33
4	18	10	16	3	20	12	18	10	17	18	12	10	19	22	14	6
5	22	22	10	3	16	17	6	7	24	13	7	7	25	13	11	3
6	6	2	0	0	1	1	0	0	7	2	0	0	4	4	3	0
7	6	3	1	0	0	1	4	0	7	1	2	0	3	0	2	3
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	8	7	11	0	18	14	11	26	11	11	13	27	7	9	13	25

Mother

Level	Grade 12				Grade 11				Grade 10				Grade 9			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1	0	8	13	3	4	4	6	10	2	4	9	7	1	3	5	18
2	8	10	13	35	7	9	10	13	2	7	21	20	6	12	10	24
3	46	47	55	58	45	56	53	43	57	53	47	53	44	64	50	33
4	17	10	8	3	9	6	8	0	14	10	9	3	18	6	9	6
5	18	14	5	0	13	9	5	3	17	9	12	7	16	3	5	3
6	0	0	0	0	0	0	1	0	2	1	1	0	1	1	1	0
7	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
8	3	3	1	0	6	4	3	0	2	1	1	3	3	3	7	0
9	6	8	5	1	16	12	14	31	2	15	0	7	11	8	13	16

Levels:
1. Grade school completed or less
2. High school not completed
3. High School graduate
4. Attended college 1-3 years
5. College graduate
6. M.A.
7. Ph.D., D.D.S., M.D., LL.B.
8. R.N.
9. No record

into consideration by the teacher, she will not plan for her groups as for totally homogeneous ones.

Teacher Ratings of Personality Traits

Efforts were made to tabulate teacher ratings of personality traits of the students according to the standard form used in the school. This record includes nine traits: motivation, industry, initiative, influence and leadership, concern for others, responsibility, integrity, emotional stability and grooming. The degrees of appraisal are stated in Figure I.

Each teacher was expected to mark each student in most of the traits. This means that each student would have seven marks if each teacher marked her, since she took five classes and a study, or six classes, and was a member of a homeroom. Since few students did have seven marks, it was decided to consider only those students who had a minimum of five marks for each personality trait. The marks were those given to the students at the final marking period in June. After the tabulation was well begun and percentages found, it was discovered that this would not give an accurate idea of the way in which the teachers marked, as in each class there were several traits for which fewer than 65% of the students had been marked by five out of the seven possible teachers. It was interesting to note that out of the 36 possible trait ratings of 9 each for the 4 grades, for 12 in the Grade 12, 16 in Grade 11, 17 in Grade 10 and 19 in Grade 9, evaluations were not received by more than 65% of the students, as Table 7 illustrates. Of the ratings that were present, there was a definite halo effect with the brighter students receiving generally better ratings than the average and slower students. This difference was most noticeable in comparing Group I and Group IV in each class, with Group I decidedly receiving better evaluations.

Figure 1

STUDENT PERSONALITY RECORD

Student_____   Teacher_____
Grade_____ Homeroom_____   Subject_____

The following characterizations are descriptions of behavior. The locations of the checks indicate the teacher's evaluation of the student's behavior and attitudes in this class.

1. MOTIVATION

Purposeless	Vacillating	Usually purposeful	Effectively motivated	Highly Motivated

2. INDUSTRY

Seldom works even under pressure	Needs constant pressure	Needs occasional prodding	Prepares assigned work regularly	Seeks additional work

3. INITIATIVE

Merely conforms	Seldom initiates	Frequently initiates	Consistently self-reliant	Actively creative

4. INFLUENCE AND LEADERSHIP

Negative	Co-operative but retiring	Sometimes leads in minor affairs	Contributing in important affairs	Judgment respected -- makes things go

5. CONCERN FOR OTHERS

Indifferent	Self-centered	Somewhat socially concerned	Generally concerned	Deeply and actively concerned

6. RESPONSIBILITY

Unreliable	Somewhat dependable	Usually dependable	Conscientious	Assumes much resopnsibility

7. INTEGRITY

Not dependable	Questionable at times	Generally honest	Reliable dependable	Consistently trustworthy

8. EMOTIONAL STABILITY

Hyperemotional	Excitable			
Apathetic	Unresponsive	Usually well-	Well-balanced	Exceptionally stable

9. GROOMING

Habitually unkempt	Frequently unkempt	Usually well-groomed	Always well-groomed	Always attractive and in good taste

Date _____ Student's signature_____   Date_____ Student's signature_____

Parent's signature_____   Parent's signature_____

TABLE 7

PERCENTAGE OF STUDENTS IN EACH GROUP WHO RECEIVED PERSONALITY TRAIT
RATINGS BY AT LEAST FIVE TEACHERS

Grade	Group	N	Motivation	Industry	Initiative	Influence and Leadership	Concern for Others	Responsibility	Integrity	Emotional Stability	Grooming
	I	65	86	75	57	31	52	58	60	80	89
	II	124	90	81	56	51	52	81	72	85	94
12	III	93	83	76	69	46	59	80	78	85	89
	IV	31	97	77	74	65	61	81	81	90	94
	I	69	78	74	80	51	39	84	70	80	87
	II	142	88	88	65	38	35	69	64	73	88
11	III	103	88	83	54	20	25	52	58	64	70
	IV	30	90	77	73	17	20	60	67	57	67
	I	58	78	76	48	62	52	86	90	84	90
	II	135	51	37	53	58	70	82	86	74	90
10	III	85	52	39	38	35	44	74	74	49	78
	IV	30	30	23	47	40	73	77	87	83	87
	I	68	94	85	72	54	56	91	93	87	93
	II	102	88	61	32	30	33	51	51	42	75
9	III	130	88	47	32	36	40	50	43	42	78
	IV	33	85	55	52	70	61	76	76	73	79

Another interesting consideration is that of the traits which seemed to lack at least 65% of the teacher's evaluations, and those which received more than 65%. In all grades over 65% of the students who were marked by five teachers received ratings in Grooming. In Grades 11 and 12 over 65% of the students received evaluations in Motivation and Industry. These three traits are the only ones in which 65% of the students received ratings in Group III of grade 11. These three plus emotional stability are the only ones in Group I of grade 12. In Grade 10, 65% of the students received ratings in motivation, grooming, responsibility and integrity, while in Grade 9 only in motivation and grooming were 65% of the students marked in all groups.

Initiative, influence, leadership and concern for others are the three traits where teachers seem most hesitant to mark. In fact in no group except Groups II and IV of grade 10 were over 65% of the students marked for concern for others, and in Group IV of grade 9 for influence and leadership. The reasons for this are not within the realm of this study, but would be interesting to pursue. The lack of data for the end of the year marking prevented the possibility of an accurate tabulation of the ratings present on the student personality records. The absence of one teacher's evaluation for a single student is not so noticeable individually but an accumulation of such lacks is very marked.

The study of personality traits has been the matter for other studies. Musselman found a positive relationship between high school grades and character trait ratings: "It would seem that those who get the highest grades are in the opinion of their teachers better appearing, more socially adept, more

courteous, more honest, more dependable, more industrious, and more cooperative than their fellow students who made lower grades."[87]

Hallworth says that personality traits as marked by teachers are interchangeable and that all traits can be reduced to three. Reliability and conscientiousness result from the teacher's self-directed question, "How does he get on with me?" (or "How much do I approve of him?") and extraversion which can be answered in response to "How does he get on with others?"[88]

Diedrich and Jackson[89] found that the halo effect was not present in teacher personality ratings and that students who seemed discontent with school fared no worse than those who appeared to be very satisfied with school life. No mention is made of which part of school life caused their discontent. Students who do not like to study and find no interest in academic pursuits are sometimes the nicest ones to have around because they will do anything else the teacher asks or desires.

Present experience and the statements found in the literature indicate that personality ratings by teachers may not be such that they can be considered highly reliable, and perhaps suffer from the bias of the teacher.

Objective data based on information contained in school records regarding nationality, residence, size of family, parent employment and parent education indicate a heterogeneous composition of student background for students who are

---

[87] Dayton L. Musselman, "Grades and Halos," Clearing House, XLII (September, 1967), p. 27.

[88] H. J. Hallworth, "Teacher's Personality Ratings of High School Pupils," Journal of Educational Psychology, LII (December, 1961), p. 302.

[89] Richard C. Diedrich and Philip W. Jackson, "Satisfied and Dissatisfied Students," Personnel and Guidance Journal, XLVII (March, 1969), pp. 648.

grouped according to their ability. Recognition of this heterogeneity may help classroom teachers in their approach to and understanding of students in their ability achievement "homogeneous" groups.

Since the personal data information has been presented here for descriptive purposes only, no effort has been made to determine statistical differences for the material in this chapter. The presence or absence of significant differences between the environmental influences of the various groups, particularly Groups I and IV, could be determined by another study. Such analysis is not included in the purpose of the present study, the data of which suggests that further research is needed in the area of environmental changes and influences on youth.

CHAPTER V

ANALYSIS OF RESULTS

This chapter contains the results of the t-test employed to determine the significant differences between the means for each group in each class on each of the traits measured by the Personal Orientation Inventory. Each of the twelve areas of self-actualization for each grade is treated separately.

Grade 12

Time Competent

On the Time Competent scale a significant difference was found between Group I and each of the other groups. In each analysis results of Group I were higher and the differences significant at the 1% level of significance. This would suggest that Group I students tended more to live in the present than in the past or future than the students in the other groups. This may possibly be explained in that the Group I students had achieved a feeling of success after four years in high school and could feel rather satisfied with their present position, while the students in the other groups did not share this feeling of present satisfaction at graduation time and looked either to their future hopes or with some regret upon their past and what they might have accomplished.

Time Competent

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I* - II	189	16.646	2.496	15.024	2.951	3.778
I* - III	158	16.646	2.496	14.333	2.976	5.130
I* - IV	96	16.646	2.496	14.419	3.009	3.820
II - III	217	15.024	2.951	14.333	2.976	1.701
II - IV	155	15.024	2.951	14.419	3.009	1.017
III - IV	114	14.333	2.976	14.419	3.009	-0.139

* 1% level

Inner-Directed

The only significant difference among the groups here was between Groups II and III where the significant difference was at the 5% level of significance, with Group II having the higher score. This might be explained by the opinion that the brighter students in Group II were able to rely more on their own inner resources and were less dependent upon others for their direction than were the average students in Group III.

Inner Directed

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	189	77.369	8.306	77.145	8.957	0.167
I - III	158	77.369	8.306	74.538	9.401	1.953
I - IV	96	77.369	8.306	75.226	7.383	1.224
II** - III	217	77.145	8.957	74.538	9.401	2.077
II - IV	155	77.145	8.957	75.226	7.383	1.102
III - IV	114	74.538	9.401	75.226	7.383	-0.371

** 5% level

Self-Actualizing Value

There was no significant difference in scores of self-actualizing value between the groups. All scores indicated a position on the middle road between the acceptance and rejection of the values accepted by self-actualizing people.

Self-Actualizing Value

Group	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	189	19.492	2.623	18.766	2.806	1.728
I - III	158	19.492	2.623	18.688	2.832	1.810
I - IV	96	19.492	2.623	18.452	2.263	1.896
II - III	217	18.766	2.806	18.688	2.832	0.202
II - IV	155	18.766	2.806	18.452	2.263	0.577
III - IV	114	18.688	2.832	18.452	2.263	0.421

Existentiality

In the results on the existentiality scale, which measures the ability to apply self-actualizing principles to one's own life, significant differences were found at the 1% level for Groups II and III and Groups II and IV, and at the 5% level for Groups I and IV, with Groups I and II having the higher scores. These results indicate that Group II is the most flexible in the application of self-actualizing values, while Group IV seems to tend toward rigidity in holding to values and may tend to be compulsive and dogmatic. Group III is not significantly different from Group IV on this scale. These differences may possibly be explained in part in that the students in Group II are conscious enough of their mental ability (which means much in a school situation) to be secure in that without having the pressure of having to live up to certain expectancies of others as the honor students do. This would give them more freedom to be flexible in applying values in their behavior. The students with less ability may feel constrained to act according to more set principles because they do not have the security of feeling they are bright enough to meet situations and react as they see fit having been influenced by others who have instilled in them the attitude that they are average or below average.

Existentiality

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	189	17.723	3.324	18.250	3.784	-0.947
I - III	158	17.723	3.324	16.839	3.907	1.486
I** - IV	96	17.723	3.324	16.258	3.346	2.015
II* - III	217	18.250	3.784	16.839	3.907	2.681
II* - IV	155	18.250	3.784	16.258	3.346	2.679
III - IV	114	16.839	3.907	16.258	3.346	0.742

* 1% level
** 5% level

Feeling Reactivity

The only significant difference on the feeling reactivity scale lies between Groups I and II at the 5% level of significance where Group II has the higher value.

Feeling Reactivity

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II**	189	13.369	2.583	14.387	2.731	-2.479
I - III	158	13.369	2.583	13.957	2.742	-1.358
I - IV	96	13.369	2.583	14.323	3.070	-1.590
II - III	217	14.387	2.731	13.957	2.742	1.146
II - IV	155	14.387	2.731	14.323	3.070	0.114
III - IV	114	13.957	2.742	14.323	3.070	-0.624

** 5% level

Spontaneity

The spontaneity scores indicate there is no significant difference in regard to the degree to which students express their feelings in behavior regardless of their grouping.

			Spontaneity			
Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	189	10.723	2.522	11.008	2.546	-0.733
I - III	158	10.723	2.522	10.570	2.589	0.369
I - IV	96	10.723	2.522	11.290	2.036	-1.093
II - III	217	11.008	2.546	10.570	2.589	1.245
II - IV	155	11.008	2.546	11.290	2.036	-0.572
III - IV	114	10.570	2.589	11.290	2.036	-1.409

Since there is only one significant difference on the two feeling scales of feeling reactivity and spontaneity, it is difficult to make assumptions regarding the reason for this difference. It seems that all that can be said is that Group II has significantly greater sensitivity to their own needs and feelings than does Group I as here measured.

Self-regard

Significant differences in self-regard occur at the 5% level of significance between three sets of groups. Group I is significantly higher than Group II. This could be partially explained by the continual build-up regarding their worth that this group is given in and out of the school situation because of their potential and achievement. Group IV is significantly higher than Groups II and III.

			Self-Regard			
Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** - II	189	11.446	2.208	10.629	2.510	2.213
I - III	158	11.446	2.208	10.677	2.663	1.913
I - IV	96	11.446	2.208	11.742	2.206	-0.614
II - III	217	10.629	2.510	10.677	2.663	-0.136
II - IV**	155	10.629	2.510	11.742	2.206	-2.259
III - IV**	114	10.677	2.663	11.742	2.206	-2.008

** 5% level

This could also, perhaps, be partially explained by the build-up they receive in the lowest group from some teachers, counselors and parents who have tried to give these students reasons for believing that intelligence has many

different manifestations of which academic success is only one. Efforts were made to capitalize on the successes of these students in such fields as music, art, homemaking, responsibility in employment, acceptance of volunteer work and willingness to share their time and talents. By the time they were seniors they had perhaps accepted the fact of their intellectual limitations. Perhaps Groups II and III were rather taken for granted by most of their teachers, and deliberate efforts were not made to help them to become conscious of their potentiality for contributing to society and the adult world.

Self-acceptance

Significant differences at the 1% level of significance existed between Groups I and III and II and III, with Group III having the lower score in both instances.

Self-Acceptance

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	189	14.631	2.859	14.629	3.446	0.004
I* - III	158	14.631	2.859	13.312	2.971	2.789
I - IV	96	14.631	2.859	13.677	3.419	1.433
II* - III	217	14.629	3.446	13.312	2.971	2.953
II - IV	155	14.629	3.446	13.677	3.419	1.378
III - IV	114	13.312	2.971	13.677	3.419	-0.570

* 1% level

Perhaps the intellectually superior and above average students in Groups I and II were conscious of and satisfied with their ability while those average students of Group III desired greater intellectual accomplishment. These average students probably found it difficult to accept themselves as just average. Group IV students, because of the work being done with them, had probably learned to accept themselves as they were, and were able to realize their ability to make significant contributions.

Nature of Man

On this scale which is concerned with the judgment of the nature of man, Group I scored significantly higher (at the 1% level) than Group II, III and IV.

Nature of Man

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	189	12.800	1.872	11.581	1.744	4.449
I* - III	158	12.800	1.872	11.581	1.969	3.907
I* - IV	96	12.800	1.872	11.065	1.825	4.280
II - III	217	11.581	1.744	11.581	1.969	0.000
II - IV	155	11.581	1.744	11.065	1.825	1.460
III - IV	114	11.581	1.969	11.065	1.825	1.286

* 1% level

In view of the fact that Group I is composed of students whose main efforts are concerned with school where they have met with high success in the honor group, these results are not surprising. These students not only have obtained top marks, but they have the most positive teacher ratings on personality traits, have been elected to class and school offices and committees, have been chosen to represent the school, and in general, have been given recognition. Within their adolescent "professional" world they have met mainly with others who have approved of them and considered them successful and important people. The other groups have not shared in their experiences of almost complete acceptance and have not so frequently seen other people as essentially good. Group I students for the most part go about their business without causing anyone any trouble, therefore they bring out the best in the adults who come into their lives.

Synergy

In this second scale of awareness Group I is again significantly higher than Groups II, III and IV, this time at the 5% level of significance.

Synergy

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** - II	189	6.862	1.088	6.371	1.303	2.599
I** - III	158	6.862	1.088	6.398	1.603	2.029
I** - IV	96	6.862	1.088	6.226	1.383	2.448
II - III	217	6.371	1.303	6.398	1.603	-0.137
II - IV	155	6.371	1.303	6.226	1.383	0.547
III - IV	114	6.398	1.603	6.226	1.383	0.535

** 5% level

This means that Group I students are more able to see the opposites of life as meaningfully related. The other groups are less able to understand dichotomies, probably because of their different experiences with people in regard to themselves. The honor group probably has had more occasion to see both sides of people than the students in groups of less ability and achievement.

Acceptance of Aggression and Capacity for Intimate Contact

On both of these scales of interpersonal sensitivity Groups II and III are significantly different at the 5% level. No significant difference exists between the other groups.

Acceptance of Aggression

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	189	14.908	2.731	15.637	2.939	-1.659
I - III	158	14.908	2.731	14.602	3.271	0.618
I - IV	96	14.908	2.731	14.774	2.617	0.228
II** - III	217	15.637	2.939	14.602	3.271	2.445
II - IV	155	15.637	2.939	14.774	2.617	1.493
III - IV	114	14.602	3.271	14.774	2.617	-0.266

** 5% level

Capacity for Intimate Contact

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	189	14.954	3.145	15.702	3.015	-1.596
I - III	158	14.954	3.145	14.774	3.314	0.343
I - IV	96	14.954	3.145	14.871	2.487	0.129
II** - III	217	15.702	3.015	14.774	3.314	2.150
II - IV	155	15.702	3.015	14.871	2.487	1.418
III - IV	114	14.774	3.314	14.871	2.487	-0.149

** 5% level

Group II has higher score value than any of the other groups for these two traits, but it is only when compared with Group III that Group II seems to have significantly better interpersonal relationships.

Summary - Grade 12

In summary, Group I scores are significantly higher than those of the other three groups for Time Competent, Nature of Man and Synergy scales. Group I is significantly higher than Group IV on Existentiality, significantly higher than Group II on Self-regard and Group III on Self-acceptance scales. This would indicate that Group I is more inclined to live in the present and is more consciously aware of life and the persons and situations involved in it than are the other three groups. In general, it is indicated that Group I makes better use of time than the other groups.

Group II is more inner directed than Group III, experiences more freedom to react flexibly to circumstances of the moment, has better interpersonal relationships, and has a higher degree of self-acceptance. Since Group II is more inner directed, there is probably a greater freedom of choice in establishing relationships, less dependency on the opinions of others and greater ability to accept self because of this freedom and independence.

Group II is significantly higher than Group IV in regard to existentiality, which means that this group has more flexibility in the application of values of self-actualization toward daily living. Group II seems to have a significantly higher sensitivity to its own needs and feelings than does Group I.

Group IV scores significantly higher than Groups II and III on the self-regard scale. This may be due to efforts on the part of persons working with Group IV to instill in them an appreciation of their own strengths and potentialities and a realistic appraisal of their weaknesses.

The suggestions made in these remarks regarding the results of the students in Grade 12 on the POI scales are merely those which seem to result from practical experience with the subjects and a personal knowledge of some of their reactions, feelings, and experiences. There are undoubtedly many other opinions which could be advanced in explanation.

The seniors had four years of high school influences. The honor students had been made well aware of their potential by their teachers, their parents, their peers and their successes. The students in the above average group were spurred on to meet their potential and assured they could do more. The average group was quite well accepted as average and given more discouragement than encouragement as they saw the brighter students in Groups I and II achieving success, being highly praised and frequently enlisted in the "chosen" curriculum. The basic group was given special experimental treatment in order to meet the needs of the group and of the individuals within the group as much as possible. The Group IV students were also the recipients of praise and encouragement, although this was not comparable to that of the honor group.

The influences of the four years did seem to produce an honor group with greater self-actualizing progress than the other Groups. Group II showed some

tendency toward higher scoring, and Group IV appeared to be significantly

higher than Groups I and III on self-regard. This may suggest that special

training did have a positive effect on this group.

Grade 11

Time Competent

On the Time Competent scale Group I is significantly higher than all the

other groups and Group IV is significantly lower than the other three groups.

Time Competent

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** - II	204	16.254	2.992	15.328	2.836	2.151
I* - III	165	16.254	2.992	14.878	3.170	2.801
I* - IV	97	16.254	2.992	12.800	3.145	5.173
II - III	235	15.328	2.836	14.878	3.170	1.141
II* - IV	167	15.328	2.836	12.800	3.145	4.335
III* - IV	118	14.878	3.170	12.800	3.145	3.148

* 1% level
** 5% level

These results indicate that the students in Group I tend to be significantly

more present-oriented than the students in the other three groups, while those

in Group IV are significantly less present-oriented, and more inclined to the

past or the future. It is not surprising that Group I, which is currently

meeting with success and approval for academic achievement frequently, feels

satisfaction with the present and does not need to have thoughts of the past

or dreams of the future. At the same time Group IV would perhaps find living

on hopes of success in the future more encouraging.

Inner-Directed

On the inner directed scale Group IV scores are significantly lower than

those for the other three groups at the 1% level of significance. The other

significant difference is that Group I is higher than Group III at the 5% level.

Inner Directed

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	79.403	9.195	77.759	9.545	1.169
I** - III	165	79.403	9.195	75.776	10.825	2.244
I* - IV	97	79.403	9.195	69.700	9.392	4.772
II - III	235	77.759	9.545	75.776	10.825	1.484
II* - IV	167	77.759	9.545	69.700	9.392	4.200
III* - IV	118	75.776	10.825	69.700	9.392	2.770

* 1% level
** 5% level

These results indicate that the students in Group IV are significantly more outer-directed and that they depend more upon the direction of others than do the students in the other three Groups who are more able to rely on their own personal inner resources for motivation and direction.

Self-Actualizing Value

The only significant difference on the self-actualizing scale is at the 1% level of significance between Groups I and IV. This indicates that Group I is more acceptant of the values of self-actualizing people, while Group IV tends more toward rejection of these values.

Self-Actualizing Value

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	19.149	2.554	18.693	2.762	1.135
I - III	165	19.149	2.554	18.592	2.802	1.299
I* - IV	97	19.149	2.554	17.667	2.202	2.751
II - III	235	18.693	2.762	18.592	2.802	0.275
II - IV	167	18.693	2.762	17.667	2.202	1.905
III - IV	118	18.592	2.802	17.667	2.202	1.657

* 1% level

Existentiality

On the existentiality scale Group I is higher than Group III at the 5% level and both Groups I and II are significantly higher than Group IV at the 1% level.

Existentiality

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	18.701	3.538	18.022	3.853	1.214
I** - III	165	18.701	3.538	17.224	4.136	2.386
I* - IV	97	18.701	3.538	16.000	3.686	3.431
II - III	235	18.022	3.853	17.224	4.136	1.518
II* - IV	167	18.022	3.853	16.000	3.686	2.623
III - IV	118	17.224	4.136	16.000	3.686	1.453

* 1% level
** 5% level

This suggests that Group III is less flexible than Group I in applying self-actualizing principles to life; Group IV is more rigid than Groups I and II in applying such principles to life. Perhaps Group IV does not have the personal security to be free and to adapt to a change in values but must cling to the ones previously adhered to where the outcome and response are more certain.

Feeling Reactivity

Group IV is significantly lower (5% level of significance) than Groups I and II. This indicates that Group IV is less sensitive to its own needs and feelings. One might wonder whether they are really less sensitive or afraid to consciously express their sensitivity. It may be that they feel they will get farther in life and get along with others better if they deny their own personal feelings and needs. The students in this particular group have felt a stigma at being in the below average group all through high school.

Feeling Reactivity

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	204	14.149	2.872	14.204	2.782	-0.131
I - III	165	14.149	2.872	13.837	2.639	0.719
I** - IV	97	14.149	2.872	12.933	2.504	2.002
II - III	235	14.204	2.782	13.837	2.639	1.019
II** - IV	167	14.204	2.782	12.933	2.504	2.306
III - IV	118	13.837	2.639	12.933	2.504	1.661

** 5% level

It seems that the fact that they could not take a language has been frequently brought to their attention and they are very conscious that they are not supposed to be very good students. As a class they have developed the defense of a rather carefree bold attitude. One of the first items that comes up in their explanations of their conduct is that they aren't much good anyway, they couldn't even take a language. The fact that many of the students in this group had hoped to go to college when they were in the eighth grade and several would still like to be teachers perhaps has aggravated this sensitivity. This is manifested in an attitude of overtly caring about nothing anyone else might have to say. They think they are all right themselves but that others do not agree in that opinion.

Spontaneity

There is no significant difference between any of the groups in spontaneity. Groups are similar in degree of freedom to express their feelings.

Spontaneity

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	204	10.642	2.473	11.080	2.668	-1.127
I - III	165	10.642	2.478	11.357	2.613	-1.762
I - IV	97	10.642	2.478	10.367	2.005	0.533
II - III	235	11.080	2.668	11.357	2.613	-0.791
II - IV	167	11.080	2.668	10.367	2.025	1.378
III - IV	118	11.357	2.613	10.367	2.025	1.905

Self-Regard and Self-Acceptance

No significant difference is present on the self-regard scale.

Self-Regard

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	11.000	2.928	10.788	2.672	0.516
I - III	165	11.000	2.928	10.939	2.544	0.142
I - IV	97	11.000	2.928	10.967	2.059	0.056
II - III	235	10.788	2.672	10.939	2.544	-0.436
II - IV	167	10.788	2.672	10.967	2.059	-0.345
III - IV	118	10.939	2.544	10.967	2.059	-0.055

Group IV is significantly lower than the other groups on the self-acceptance scale.

Self-Acceptance

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	14.896	3.182	14.642	3.309	0.521
I - III	165	14.896	3.182	14.582	2.946	0.651
I* - IV	97	14.896	3.182	12.967	2.710	2.883
II - III	235	14.642	3.309	14.582	2.946	0.143
II** - IV	167	14.642	3.309	12.967	2.710	2.587
III* - IV	118	14.582	2.946	12.967	2.710	2.675

* 1% level
** 5% level

Self-acceptance is more difficult to achieve than self-regard, and it seems that Group IV has not yet achieved it to the same degree as other groups in the grade.

Nature of Man

Significant differences exist at each level except between Groups I and II.

Nature of Man

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	12.328	1.655	11.985	1.879	1.272
I* - III	165	12.328	1.655	11.194	2.079	3.728
I* - IV	97	12.328	1.655	10.333	1.605	5.538
II* - III	235	11.985	1.879	11.194	2.079	3.043
II* - IV	167	11.985	1.879	10.333	1.605	4.470
III** - IV	118	11.194	2.079	10.333	1.605	2.084

* 1% level
** 5% level

The background of first hand knowledge of the groups helps to give an understanding to the results which may not be evident from the numbers themselves. In view of this knowledge it is not surprising that Groups I and II are significantly higher than Groups III and IV as there was a great deal of emphasis placed upon academic success by the teachers of this grade during their first three years. Groups III and IV were average and below average students who felt that adults were against them, hence their view of the nature of man was not the most favorable. Group IV more than Group III felt the impact of disapproval and lack of acceptance. Their reactions, in a way, mirror the reactions of others to them.

Synergy

Group I scored significantly higher than Group II on the measure of the ability to see the opposites of life as meaningfully related, and both Groups I and II scored significantly higher than Group IV.

Synergy

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** - II	204	6.687	1.270	6.307	1.216	2.066
I - III	165	6.687	1.270	6.276	1.722	1.668
I* - IV	97	6.687	1.270	5.800	0.997	3.384
II - III	235	6.307	1.216	6.276	1.722	0.162
II** - IV	167	6.307	1.216	5.800	0.997	2.131
III - IV	118	6.276	1.722	5.800	0.997	1.440

* 1% level
** 5% level

Although it is not difficult to understand that the lower ability Group IV would not be able to see the opposites of life as meaningfully related as well as the more academically capable Groups I and II, it would be difficult to suggest explanation of the difference between Groups I and II without further investigation.

Acceptance of Aggression

In the acceptance of aggression scale there is no significant difference between the groups.

Acceptance of Aggression

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	14.836	3.519	15.307	3.143	-0.966
I - III	165	14.836	3.519	15.071	3.170	-0.447
I - IV	97	14.836	3.519	14.267	2.924	0.774
II - III	235	15.307	3.143	15.071	3.170	0.566
II - IV	167	15.307	3.143	14.267	2.924	1.662
III - IV	118	15.071	3.170	14.267	2.924	1.237

Capacity for Intimate Contact

On the scale of capacity for intimate contact Group IV is lower than Groups I and II at the 5% level of significance.

Capacity for Intimate Contact

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	204	15.955	3.350	15.533	3.343	0.846
I - III	165	15.955	3.350	15.214	3.259	1.418
I** - IV	97	15.955	3.350	14.133	2.945	2.566
II - III	235	15.533	3.343	15.214	3.259	0.729
II** - IV	167	15.533	3.343	14.133	2.945	2.120
III - IV	118	15.214	3.259	14.133	2.945	1.624

** 5% level

This might possibly be connected with the feeling reactivity scale where Group IV was significantly lower than Groups I and II, also at the 5% level. Perhaps the lower capacity for intimate contact for Group IV is related to the failure to manifest sensitivity to one's own feelings and needs. If Group IV students are blocked in their ability to respond to their own needs and feelings they would not be able to establish deep, meaningful relationships.

Summary - grade 11

Scores of students in Group I were significantly higher than those of Group II on the time competent and synergy scales. This means that Group I students are more inclined to live in the present and that they are more capable of seeing the relatedness between opposites than are the Group II students.

Group I results are significantly higher than Group III results on the time competent, inner directed, existentiality and nature of man scales. This suggests that the honor students in Group I live more in the present, are more self-motivated and self-directed, are more flexible in applying general principles and values to life, and are more inclined to see man as essentially good than are the average students in Group III.

Group I is significantly higher than Group IV on time competent, inner-directed, self-actualizing, existentiality, feeling reactivity, self-acceptance,

nature of man, synergy and capacity for intimate contact scales. Group I therefore is significantly higher than Group IV in nine of the twelve scales. This would strongly indicate that the honor students in Group I are more self-actualized than the low average students in Group IV.

The above average students in Group II are significantly higher than the average students in Group III on the nature of man scale, which means that they are more likely to see man as essentially good.

The above average Group II is significantly higher than the low average Group IV on the scales of time competent, inner directed, existentiality, feeling reactivity, self-acceptance, nature of man, synergy, and capacity for intimate contact. Since Group II is significantly higher than Group IV are eight of the twelve scales, it seems indicated that Group II tends more toward self-actualization than do the students in Group IV.

Group III scores significantly higher than Group IV on the time competent, inner-directed, self-acceptance, nature of man and capacity for intimate contact scales.

Group IV did not score significantly higher than any group on any of the scales in Grade 11.

Grade 10

Time Competent

On the time competent scale Group I is higher than the three other groups and Groups II and III are higher than Group IV. Each of these differences are significant at the 1% level. This indicates that Group I is more inclined to live in the present than any of the other groups and Group IV is more inclined to live in the past or future than any of the other groups.

Time Competent

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	17.000	3.057	15.068	2.848	4.161
I* - III	140	17.000	3.057	14.762	2.827	4.442
I* - IV	86	17.000	3.057	12.633	2.810	6.490
II - III	216	15.068	2.848	14.762	2.827	0.772
II* - IV	162	15.068	2.848	12.633	2.810	4.238
III* - IV	114	14.762	2.827	12.633	2.810	3.547

* 1% level

Inner-Directed

Group I results on the inner directed scale are higher than those of the other three groups. The differences is significant at the 1% level. Group I seems to be more inner directed and less dependent on others for motivation and direction than are the other groups. There are no other significant differences.

Inner-Directed

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	80.946	9.198	74.758	9.261	4.198
I* - III	140	80.946	9.198	74.274	9.924	4.011
I* - IV	86	80.946	9.198	73.100	8.364	3.888
II - III	216	74.758	9.261	74.274	9.924	0.364
II - IV	162	74.758	9.261	73.100	8.364	0.900
III - IV	114	74.274	9.924	73.100	8.364	0.578

* 1% level

Self-Actualizing

Group I is significantly higher than Group II at the 5% level and Group III at the 1% level on the self-actualizing scale, which indicates that Group I is more inclined to accept the values of self-actualizing people than are Groups II and III.

Self-Actualizing Value

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** - II	188	19.250	2.719	18.265	2.924	2.156
I* - III	140	19.250	2.719	17.929	2.776	2.781
I - IV	86	19.250	2.719	18.367	3.102	1.366
II - III	216	18.265	2.924	17.929	2.776	0.840
II - IV	162	18.265	2.924	18.367	3.102	-0.171
III - IV	114	17.929	2.776	18.367	3.102	-0.719

* 1% level
** 5% level

Existentiality

Scores of Group I are significantly higher at the 1% level than those of Groups II and IV. Group III results are significantly higher than those of Group IV at the 5% level. The higher scores reflect greater flexibility in the application of self-actualizing values to one's practical life.

Existentiality

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	18.839	3.452	16.879	4.150	3.106
I - III	140	18.839	3.452	17.619	3.728	1.953
I* - IV	86	18.839	3.452	15.833	3.770	3.727
II - III	216	16.879	4.150	17.619	3.728	-1.328
II - IV	162	16.879	4.150	15.833	3.770	1.266
III** - IV	114	17.619	3.728	15.833	3.770	2.246

* 1% level
** 5% level

Feeling Reactivity

Significant difference exist between Groups I and II at the 5% level and between Groups I and III at the 1% level of significance. This indicates that Group I is more sensitive to its own needs and feelings than are Groups II and III. There are no other significant differences.

Feeling Reactivity

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I** - II	188	14.875	2.770	13.818	2.839	2.351
I* - III	140	14.875	2.770	13.357	2.660	3.253
I - IV	86	14.875	2.770	14.200	2.511	1.112
II - III	216	13.818	2.839	13.357	2.660	1.192
II - IV	162	13.818	2.839	14.200	2.511	-0.679
III - IV	114	13.357	2.660	14.200	2.511	-1.512

* 1% level
** 5% level

Spontaneity

There are no significant differences between any of the groups in regard to the scale which measures the ability to express feelings spontaneously.

Spontaneity

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	188	11.393	2.447	10.894	2.466	1.272
I - III	140	11.393	2.447	11.167	2.328	0.551
I - IV	86	11.393	2.447	10.533	2.300	1.585
II - III	216	10.894	2.466	11.167	2.328	-0.811
II - IV	162	10.894	2.466	10.533	2.300	0.732
III - IV	114	11.167	2.328	10.533	2.300	1.285

Self-Regard

There are no significant differences between any of the groups on the scale measuring self-worth or the ability to like oneself.

Self-Regard

Groups	N	M_1	S.D.$_1$	M_2	S.D.$_2$	t
I - II	188	11.161	2.592	10.394	2.452	1.928
I - III	140	11.161	2.592	10.643	2.352	1.225
I - IV	86	11.161	2.592	10.900	2.708	0.438
II - III	216	10.394	2.452	10.643	2.352	-0.739
II - IV	162	10.394	2.452	10.900	2.708	-1.001
III - IV	114	10.643	2.352	10.900	2.708	-0.493

Self-Acceptance

Group I scores are significantly higher than those of the three other groups at the 1% level of significance, which indicates that Group I is better able to accept weaknesses and deficiencies in self than are the other groups. There are no other significant differences.

Self-Acceptance

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	16.000	2.948	14.114	3.374	3.635
I* - III	140	16.000	2.948	13.881	3.055	4.077
I* - IV	86	16.000	2.948	13.400	2.749	3.989
II - III	216	14.114	3.374	13.881	3.055	0.513
II - IV	162	14.114	3.374	13.400	2.749	1.080
III - IV	114	13.881	3.055	13.400	2.749	0.759

* 1% level

The higher score for Group I could reflect the acceptance of that group by others.

Nature of Man

Group I scores are significantly higher than scores for the other groups at the 1% level on this scale which measures the ability to see man as essentially good. There are no other significant differences. This is understandable in view of the positive relationships Group I has with others, particularly adults, because of the success level.

Nature of Man

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	12.518	1.489	11.303	2.089	3.945
I* - III	140	12.518	1.489	11.298	1.677	4.406
I* - IV	86	12.518	1.489	10.900	1.954	4.297
II - III	216	11.303	2.089	11.298	1.677	0.018
II - IV	162	11.303	2.089	10.900	1.954	0.965
III - IV	114	11.298	1.677	10.900	1.954	1.067

* 1% level

Synergy

Group I results are significantly higher than those of the other three groups on the measure of the ability to see opposites as meaningfully related. Differences between Groups I and II and IV are significant at the 5% level and between Group I and Group III at the 1% level. The higher mental ability may partially explain this deeper insight.

Synergy

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I** – II	188	6.804	1.151	6.318	1.372	2.325
I* – III	140	6.804	1.151	5.988	1.313	3.782
I** – IV	86	6.804	1.151	6.033	1.586	2.586
II – III	216	6.318	1.372	5.988	1.313	1.752
II – IV	162	6.318	1.372	6.033	1.586	0.997
III – IV	114	5.988	1.313	6.033	1.586	-0.152

* 1% level
** 5% level

Acceptance of Aggression

Group I is significantly higher than Groups III and IV for the ability to accept interior aggression as a natural response. There are no other significant differences.

Acceptance of Aggression

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I – II	188	16.000	2.472	15.379	3.043	1.349
I* – III	140	16.000	2.472	14.679	2.846	2.833
I* – IV	86	16.000	2.472	14.367	2.646	2.849
II – III	216	15.379	3.043	14.679	2.846	1.690
II – IV	162	15.379	3.043	14.367	2.646	1.682
III – IV	114	14.679	2.846	14.367	2.646	0.525

* 1% level

Capacity for Intimate Contact

Group I scored significantly higher, than Groups II (1% level), III (5% level) on the scale which measures the person's ability to establish deep personal relationships; Group IV scored lower than Group I (1% level).

Capacity for Intimate Contact

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	188	16.107	2.668	14.788	3.285	2.655
I** - III	140	16.107	2.668	14.881	3.910	2.049
I* - IV	86	16.107	2.668	14.233	3.510	2.774
II - III	216	14.788	3.285	14.881	3.910	-0.188
II - IV	162	14.788	3.285	14.233	3.510	0.825
III - IV	114	14.881	3.910	14.233	3.510	0.800

* 1% level
** 5% level

Summary - grade 10

Results for Group I, the honor group, are significantly higher than those of the other groups on the time competent, inner directed, self-acceptance, nature of man, synergy and capacity for intimate friendships scales than any of the other groups. Since Group I is significantly higher in six out of the 12 cases, it seems proper to suggest that Group I is tending more toward self-actualization than are any of the other groups.

Group I is significantly higher than Group II on the self-actualizing, existentiality, feeling reactivity scales; higher than Group III on the self-actualizing, feeling reactivity, and aggression scales; and higher than Group IV on the existentiality, and aggression scales.

Group II is significantly higher than Group IV on time competent and Group III is significantly higher than Group IV on time competent and existentiality scales.

Groups I, II and III seem to live more in the present and to make better use of their time than does Group IV.

Group I definitely seems to tend toward self-actualization more than do the other groups. Of the twenty-nine significant differences found in the grade 10 results, twenty-six indicated that Group I is higher than all or some of the other groups. This might partially be explained by the fact that Group I had spent two full years together throughout the school day in an atmosphere of success and approval. They had become very conscious of their intellectual gifts, which are the most important aspect of an academic atmosphere. These students therefore had a certain security not shared by others. This perhaps gave them more freedom to be self-actualized. It would be interesting to see if they continued to have scores higher than the other groups as they advanced to junior and senior years in high school, where the closeness of the ability grouping is lessened, and students are mixed for some classes with members of other groups.

During the first two years of high school, when the curriculum are quite solidified, a real corporate and personal mentality develops in identification with the Group. The honor students begin to look upon themselves as the best in the class. The above average group usually accept life as they are prodded to do better and usually know they can, but are not too interested in that, as they do well and that is enough for most of them. The average group would like to be better, to get higher grades and to be able to be in more school activities while the students in the lowest group feel they are the "dummies" and have not as yet begun to realize that grades and test scores are not the most important things in life nor are they the items upon which a persons' true worth is built or judged. By the end of the tenth grade there is usually a

real conviction of one's identification with the curriculum in the minds of the teachers as well as in the minds of the students.

Grade 9

Time Competent

Significant difference at the 1% level exists between Group I and each of the other groups. There are no other significant differences. This indicates that Group I is more inclined to live in the present than are the other groups.

Time Competent

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I* - II	167	15.652	2.927	14.139	3.225	3.073
I* - III	189	15.652	2.927	13.870	2.849	4.061
I* - IV	100	15.652	2.927	13.265	2.745	3.944
II - III	224	14.139	3.225	13.870	2.849	0.662
II - IV	135	14.139	3.225	13.265	2.745	1.416
III - IV	157	13.870	2.849	13.265	2.745	1.105

* 1% level

Inner-directed

The only significant difference is at the 5% level between Groups I and IV. This difference indicates that the honor students are more attuned to self-direction than are the low average students. This could be attributed to the mental powers of the two groups and the security which comes from being taught that one has sufficient knowledge to make one's own decisions.

Inner-Directed

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	75.621	10.213	73.406	8.471	1.522
I - III	189	75.621	10.213	73.106	9.764	1.661
I ** - IV	100	75.621	10.213	71.500	7.089	2.104
II - III	224	73.406	8.471	73.106	9.764	0.243
II - IV	135	73.406	8.471	71.500	7.089	1.179
III - IV	157	73.106	9.764	71.500	7.089	0.895

** 5% level

The less bright students are often more deliberately taught to seek advice before acting.

Self-Actualizing Value

The only significant difference here occurs between Group I and III at the 5% level. This difference between the results of the honor and average groups would need further study for explanation.

Self-Actualizing Value

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	18.636	2.965	18.000	2.638	1.450
I** - III	189	18.636	2.965	17.602	2.868	2.335
I - IV	100	18.636	2.965	17.618	2.742	1.668
II - III	224	18.000	2.638	17.602	2.868	1.071
II - IV	135	18.000	2.638	17.618	2.742	0.723
III - IV	157	17.602	2.868	17.618	2.742	-0.029

** 5% level

Existentiality

Significant differences exist between the results of Group I and IV at the 1% level and between Groups II and IV and III and IV at the 5% level. These differences indicate that each of these groups is more flexible in apply-ing self-actualizing principles to life than is Group IV. Group IV students are often less sure of themselves and need more to depend upon the familiar than are the students in higher groups. This would incline Group IV students to be more rigid in holding on to principles and values which they have tried and been successful in applying.

Existentiality

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	16.909	4.637	16.099	3.948	1.209
I - III	189	16.909	4.637	15.943	3.779	1.545
I* - IV	100	16.909	4.637	14.353	3.347	2.851
II - III	224	16.099	3.948	15.943	3.779	0.301
II** - IV	135	16.099	3.948	14.353	3.347	2.312
III** - IV	157	15.943	3.779	14.353	3.347	2.223

* 1% level
** 5% level

Feeling Reactivity

On the feeling reactivity scale Group III scored significantly higher than Group II at the 5% level, indicating that the average group had greater sensitivity to their own needs and feelings than the above average group.

Feeling Reactivity

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	13.439	2.941	12.663	2.523	1.819
I - III	189	13.439	2.941	13.496	3.017	-0.125
I - IV	100	13.439	2.941	13.529	3.126	-0.142
II - III**	224	12.663	2.523	13.496	3.017	-2.211
II - IV	135	12.663	2.523	13.529	3.126	-1.627
III - IV	157	13.496	3.017	13.529	3.126	-0.056

** 5% level

This may be because the average students are less pressured by outside responsibilities within the school situation and have less to think about and so have more time to become conscious of themselves, and their personal needs and feelings.

Spontaneity

There are no significant differences between groups on the spontaneity scales.

Spontaneity

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	10.924	2.604	10.436	2.381	1.248
I - III	189	10.924	2.604	10.520	2.263	1.109
I - IV	100	10.924	2.604	10.735	1.729	0.382
II - III	224	10.436	2.381	10.520	2.263	-0.270
II - IV	135	10.436	2.381	10.735	1.729	-0.674
III - IV	157	10.520	2.263	10.735	1.729	-0.514

Self-Regard

There are no significant differences between groups on the self-regard scales.

Self-Regard

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	11.076	2.489	10.921	2.252	0.417
I - III	189	11.076	2.489	10.780	2.616	0.754
I - IV	100	11.076	2.489	11.147	2.376	-0.137
II - III	224	10.921	2.252	10.780	2.616	0.427
II - IV	135	10.921	2.252	11.147	2.376	-0.499
III - IV	157	10.780	2.616	11.147	2.376	-0.738

Self-Acceptance

There are no significant differences between groups on the self-acceptance scales.

Self-Acceptance

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	13.970	3.162	13.901	3.297	0.134
I - III	189	13.970	3.162	13.407	2.911	1.230
I - IV	100	13.970	3.162	12.853	2.754	1.746
II - III	224	13.901	3.297	13.407	2.911	1.190
II - IV	135	13.901	3.297	12.853	2.754	1.667
III - IV	157	13.407	2.911	12.853	2.754	0.993

Nature of Man

On the nature of man scale a significant difference existed at the 5%
level for scores of Groups I and III and for I and IV.

Nature of Man

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	11.500	1.971	11.089	1.924	1.337
I** - III	189	11.500	1.971	10.732	2.053	2.486
I** - IV	100	11.500	1.971	10.559	2.177	2.182
II - III	224	11.089	1.924	10.732	2.053	1.332
II - IV	135	11.089	1.924	10.559	2.177	1.343
III - IV	157	10.732	2.053	10.559	2.177	0.429

** 5% level

The students in the honor group who are the recipients of much praise and en-
couragement from others and who usually bring out the most agreeable side of
others because they cause no problems themselves are more likely to see man as
essentially good than are the average and below average students who often meet
others in the face of difficulties and correction.

Synergy

Significant differences exist at the 5% level between Groups I and IV,
and at the 1% level between Groups II and III and between Groups II and IV.
The average and below average groups probably do not have the insight to see
relationships among apparent opposites in life, and are more inclined to take
things at face value without differentiating between elements.

Synergy

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	6.030	1.381	6.337	1.856	-1.151
I - III	189	6.030	1.381	5.683	1.433	1.607
I** - IV	100	6.030	1.381	5.324	1.121	2.574
II* - III	224	6.337	1.856	5.683	1.433	2.975
II* - IV	135	6.337	1.856	5.324	1.121	2.999
III - IV	157	5.683	1.433	5.324	1.121	1.350

* 1% level
** 5% level

Acceptance of Aggression

There is no significant difference between groups on this scale.

Acceptance of Aggression

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	14.924	3.169	14.634	3.059	0.591
I - III	189	14.924	3.169	14.585	3.307	0.682
I - IV	100	14.924	3.169	13.676	3.082	1.883
II - III	224	14.634	3.059	14.585	3.307	0.114
II - IV	135	14.634	3.059	13.676	3.082	1.577
III - IV	157	14.585	3.307	13.676	3.082	1.439

Capacity for Intimate Contact

Significant difference exists between Groups I and IV at the 1% level of significance. The honor students are probably better equipped with personal security to go out to others while the low average students tend to be more insecure, afraid of making mistakes and afraid to venture into new or deep personal relationships.

Capacity for Intimate Contact

Groups	N	M_1	$S.D._1$	M_2	$S.D._2$	t
I - II	167	14.985	3.558	14.257	3.276	1.357
I - III	189	14.985	3.558	13.984	3.580	1.836
I* - IV	100	14.985	3.558	13.059	3.247	2.640
II - III	224	14.257	3.276	13.984	3.580	0.590
II - IV	135	14.257	3.276	13.059	3.247	1.848
III - IV	157	13.984	3.580	13.059	3.247	1.359

* 1% level

Summary - grade 9

Group I scored significantly higher than Groups II, III and IV on time competent scale. This is the only scale on which Group I scored significantly higher than Group II.

Group I scored significantly higher than Group III on self-actualizing value, and nature of man, and higher than Group IV on inner directed, existentiality, nature of man, synergy and capacity for intimate contact scales. Of the 15 significant differences which existed among groups, on ten of them Group I scored significantly higher than the group to which it was compared. This would indicate that Group I tends more toward self-actualization than do the other groups.

Group II scored significantly higher than Group IV on existentiality and synergy, and higher than Group III on synergy.

Group III scored higher than Group II on feeling reactivity, and higher than Group IV on existentiality.

These results suggest that students in the honor group, Group I, tend more towards self-actualization and that those in the low average group, Group IV, tend least toward self-actualization.

Table 8 presents a summary of the statistically significant differences for all the grades and groups for each scale of the Personal Orientation Inventory to provide an overall picture of the significant results, and to list the instances where the null hypothesis of no significant difference between groups is rejected.

Profile

The profile sheet has been constructed from adult norms. Raw scores are automatically converted into standard scores when plotted on the sheet. Scores above the average of 50 and below the standard score of 60 are considered to be those most characteristic of self-actualizing adults. Those between standard scores of 40 and 50 seem to be within the range of the normal population as indicated for supervisors (male), student nurses, college juniors and seniors, entering college freshmen and high school students on the profiles presented in the manual.[90]

According to the profile scores of Grade 12 (Table 9) the students are normal in their degree of tendency toward self-actualization. Group I students seem to be in the self-actualizing range on the nature of man scale. Group II students are within the 40-50 standard score range for each scale. Group III is slightly below 40 on the time competent scale but within the 40-50 range on the other scales. Group IV is slightly below on the time competent and existentiality scales but within the 40-50 standard score range for the other scales.

Groups I, II and III of Grade 11 (Table 10) are within the 40-50 range on all of the scales. Group IV is considerably below on the time competent scale,

---

[90] Everett L. Shostrom, Manual: Personal Orientation Inventory (San Diego, California, Educational and Industrial Testing Service, 1966), pp. 11-12.

TABLE 8

SUMMARY OF SIGNIFICANT RESULTS

Scale	Groups Between Which Differences Were Found to Exist			
	Grade 12	Grade 11	Grade 10	Grade 9
Time Competence	I* – II I* – III I* – IV	I** – II I* – III I* – IV I* – IV III* – IV	I* – II I* – III I* – IV II* – IV III* – IV	I* – II I* – III I* – IV
Inner Directed	II** – III	I** – III I* – IV II* – IV III* – IV	I* – II I* – III I* – IV	I** – IV
Self-Actualizing Value	-----	I* – IV	I** – II I* – III	I** – III
Existentiality	I** – IV II* – III II* – IV	I** – III I* – IV II* – IV	I* – II I* – IV III** – IV	I* – IV II** – IV III* – IV
Feeling Reactivity	I – II**	I** – IV II** – IV	I** – II I* – III	II – III**
Spontaneity	-----	-----	-----	-----
Self-Regard	I** – II II – IV** III – IV**	-----	-----	-----
Self-Acceptance	I* – III II* – III	I* – IV II** – IV III* – IV	I* – II I* – III I* – IV	-----
Nature of Man	I* – II I* – III I* – IV	I* – III I* – IV II* – III II* – IV III** – IV	I* – II I* – III I* – IV	I** – III I* – IV
Synergy	I** – II I** – III I** – IV	I** – II I* – IV II** – IV	I** – II I* – III I** – IV	I** – IV II* – III I* – IV
Acceptance of Aggression	II** – III	-----	I* – III I* – IV	-----
Capacity for Intimate Contact	II** – III	I** – IV II** – IV	I* – II I** – III I* – IV	I* – IV

*Indicates 1% level.

**Indicates 5% level.

---No significant difference.

TABLE 9

MEANS FOR POI ON PROFILE CHARTS
GRADE 12

POI Scale	Group			
	I	II	III	IV
Time Competent	16.65	15.02	14.33	14.42
Inner-Directed	77.37	77.15	74.54	75.23
Self-Actualizing	19.49	18.77	18.69	18.45
Existentiality	17.72	18.25	16.84	16.26
Feeling Reactivity	13.37	14.39	13.96	14.32
Spontaneity	10.72	11.01	10.57	11.29
Self-Regard	11.45	10.63	10.68	11.74
Self-Acceptance	14.63	14.63	13.31	13.68
Nature of Man	12.80	11.58	11.58	11.07
Synergy	6.86	6.37	6.40	6.23
Acceptance of Aggression	14.91	15.63	14.60	14.77
Capacity for Intimate Contact	14.95	15.70	14.77	14.87

Figure 2

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY

NAME ___ Grade 12 _____ DATE TESTED _____

AGE _____ SEX _____

OCCUPATION _____

I T_I - T_C (Time) Ratio:
Self-Actualizing Average: T_I:T_C = 1:8
Your Ratio: T_I:T_C = 1: ___

1									9	10
1	2	3	4	5	6	7	8	9	10	

II O - I (Support) Ratio:
Self-Actualizing Average: O:I = 1:3
Your Ratio: O:I = 1: ___

11									
1	2	3	4	5	6	7	8	9	10

		VALUING		FEELING		SELF-PERCEPTION		SYNERGISTIC AWARENESS		INTERPERSONAL SENSITIVITY	
TIME COMPETENT Lives in the present	**INNER-DIRECTED** Independent, self-supportive	**SELF-ACTUALIZING VALUE** Holds values of self-actualizing people	**EXISTENTI-ALITY** Flexible in application of values	**FEELING REACTIVITY** Sensitive to own needs and feelings	**SPONTA-NEITY** Freely expresses feelings behaviorally	**SELF-REGARD** Has high self-worth	**SELF-ACCEPTANCE** Accepting of self in spite of weaknesses	**NATURE OF MAN, CON-STRUCTIVE** Sees man as essentially good	**SYNERGY** Sees opposites of life as meaning-fully related	**ACCEPTANCE OF AGGRESSION** Accepts feelings of anger or aggression	**CAPACITY FOR INTIMATE CONTACT** Has warm interpersonal relationships
T_C	I	SAV	Ex	Fr	S	Sr	Sa	Nc	Sy	A	C

ADULT NORMS

(Standard Scores plotted from 20 to 80 on left and right axes)

| **TIME INCOMPE-TENT** Lives in the past or future | **OTHER DIRECTED** Dependent, seeks sup-port of others' views | **Rejects values of self-actualiz-ing people** | **Rigid in application of values** | **Insensitive to own needs and feelings** | **Fearful of expressing feelings behaviorally** | **Has low self-worth** | **Unable to accept self with weaknesses** | **Sees man as essentially evil** | **Sees opposites of life as antagonistic** | **Denies feelings of anger or aggression** | **Has diffi-culty with warm inter-personal relations** |

— I   — III
— II   — IV

Raw Scores

COPYRIGHT © 1963, 1965 by EDUCATIONAL & INDUSTRIAL TESTING SERVICE, SAN DIEGO, CALIFORNIA 92107
REPRODUCTION OF THIS FORM BY ANY MEANS STRICTLY PROHIBITED

109

TABLE 10

MEANS FOR POI ON PROFILE CHARTS
GRADE 11

POI Scale	Group			
	I	II	III	IV
Time Competent	16.25	15.33	14.88	12.80
Inner-Directed	79.40	77.76	75.78	69.70
Self-Actualizing	19.15	18.69	18.59	17.67
Existentiality	18.70	18.02	17.22	16.00
Feeling Reactivity	14.15	14.20	13.84	12.93
Spontaneity	10.64	11.08	11.36	10.37
Self-Regard	11.00	10.79	10.94	10.97
Self-Acceptance	14.90	14.64	14.58	12.97
Nature of Man	12.33	11.99	11.19	10.33
Synergy	6.69	6.31	6.28	5.80
Acceptance of Aggression	14.84	15.31	15.07	14.27
Capacity for Intimate Contact	15.96	15.53	15.21	14.13

Figure 3

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY

NAME __Grade 11_____ DATE TESTED _____

AGE _____ SEX_____

OCCUPATION _____

_____

I T₁ - T_C (Time) Ratio:
Self-Actualizing Average: $T_I : T_C = 1:8$
Your Ratio: $T_I : T_C = 1:$ ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

II O - I (Support) Ratio:
Self-Actualizing Average: $O:I = 1:3$
Your Ratio: $O:I = 1:$ ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

		VALUING		FEELING		SELF-PERCEPTION		SYNERGISTIC AWARENESS		INTERPERSONAL SENSITIVITY	
TIME COMPETENT Lives in the present	INNER-DIRECTED Independent, self-supportive	SELF-ACTUALIZING VALUE Holds values of self-actualizing people	EXISTENTIALITY Flexible in application of values	FEELING REACTIVITY Sensitive to own needs and feelings	SPONTANEITY Freely expresses feelings behaviorally	SELF-REGARD Has high self-worth	SELF-ACCEPTANCE Accepting of self in spite of weaknesses	NATURE OF MAN, CONSTRUCTIVE Sees man as essentially good	SYNERGY Sees opposites of life as meaningfully related	ACCEPTANCE OF AGGRESSION Accepts feelings of anger or aggression	CAPACITY FOR INTIMATE CONTACT Has warm interpersonal relationships
T_C	I	SAV	Ex	Fr	S	Sr	Sa	Nc	Sy	A	C

ADULT NORMS

Standard Scores: 80, 70, 60, 50, 40, 30, 20

| TIME INCOMPETENT Lives in the past or future | OTHER DIRECTED Dependent, seeks support of others' views | Rejects values of self-actualizing people | Rigid in application of values | Insensitive to own needs and feelings | Fearful of expressing feelings behaviorally | Has low self-worth | Unable to accept self with weaknesses | Sees man as essentially evil | Sees opposites of life as antagonistic | Denies feelings of anger or aggression | Has difficulty with warm interpersonal relations |

Raw Scores

TABLE 11

MEANS FOR POI ON PROFILE CHARTS
GRADE 10

POI Scale	Group			
	I	II	III	IV
Time Competent	17.00	15.07	14.76	12.63
Inner-Directed	80.95	74.76	74.27	73.10
Self-Actualizing Value	19.25	18.27	17.93	18.37'
Existentiality	18.84	16.88	17.62	15.83
Feeling Reactivity	14.88	13.82	13.36	14.20
Spontaneity	11.39	10.89	11.17	10.53
Self-Regard	11.16	10.39	10.64	10.90
Self-Acceptance	16.00	14.11	13.88	13.40
Nature of Man	12.52	11.30	11.30	10.90
Synergy	6.80	6.32	5.99	6.03
Acceptance of Aggression	16.00	15.38	14.68	14.37
Capacity for Intimate Contact	16.11	14.79	14.88	14.23

Figure 4

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY

NAME __Grade 10__ DATE TESTED _____

AGE _____ SEX _____

OCCUPATION _____

I T$_I$ - T$_C$ (Time) Ratio:
Self-Actualizing Average: T$_I$:T$_C$ = 1:8
Your Ratio: T$_I$:T$_C$ = 1: ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

II O - I (Support) Ratio:
Self-Actualizing Average: O:I = 1:3
Your Ratio: O:I = 1: ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

		VALUING		FEELING		SELF-PERCEPTION		SYNERGISTIC AWARENESS		INTERPERSONAL SENSITIVITY	
TIME COMPETENT Lives in the present	INNER-DIRECTED Independent, self-supportive	SELF-ACTUALIZING VALUE Holds values of self-actualizing people	EXISTENTI-ALITY Flexible in application of values	FEELING REACTIVITY Sensitive to own needs and feelings	SPONTA-NEITY Freely expresses feelings behaviorally	SELF-REGARD Has high self-worth	SELF-ACCEPTANCE Accepting of self in spite of weaknesses	NATURE OF MAN, CON-STRUCTIVE Sees man as essentially good	SYNERGY Sees opposites of life as meaning-fully related	ACCEPTANCE OF AGGRESSION Accepts feelings of anger or aggression	CAPACITY FOR INTIMATE CONTACT Has warm interpersonal relationships
T$_C$	I	SAV	Ex	Fr	S	Sr	Sa	Nc	Sy	A	C

ADULT NORMS

Standard Scores (left axis): 80, 70, 60, 50, 40, 30, 20

| TIME INCOMPE-TENT Lives in the past or future | OTHER DIRECTED Dependent, seeks sup-port of others' views | Rejects values of self-actualiz-ing people | Rigid in application of values | Insensitive to own needs and feelings | Fearful of expressing feelings behaviorally | Has low self-worth | Unable to accept self with weaknesses | Sees man as essentially evil | Sees opposites of life as antagonistic | Denies feelings of anger or aggression | Has diffi-culty with warm inter-personal relations |

Raw Scores

I, II, III, IV

COPYRIGHT © 1963, 1965 by EDUCATIONAL & INDUSTRIAL TESTING SERVICE, SAN DIEGO, CALIFORNIA 92107
REPRODUCTION OF THIS FORM BY ANY MEANS STRICTLY PROHIBITED

113

TABLE 12

MEANS FOR POI ON PROFILE CHARTS
GRADE 9

POI Scale	Group			
	I	II	III	IV
Time Competent	15.65	14.14	13.87	13.27
Inner-Directed	75.62	74.41	73.11	71.50
Self-Actualizing Value	18.64	18.00	17.60	17.62
Existentiality	16.91	16.10	15.94	14.35
Feeling Reactivity	13.44	12.66	13.50	13.53
Spontaneity	10.92	10.44	10.52	10.74
Self-Regard	11.08	10.92	10.78	11.15
Self-Acceptance	13.97	13.90	13.41	12.85
Nature of Man	11.50	11.09	10.73	10.56
Synergy	6.03	6.34	5.68	5.32
Acceptance of Aggression	14.92	14.63	14.59	13.68
Capacity for Intimate Contact	14.99	14.26	13.98	13.06

Figure 5

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY

NAME __Grade 9__ DATE TESTED ____

AGE ____ SEX ____

OCCUPATION ____

I T_1 - T_C (Time) Ratio:
Self-Actualizing Average: $T_1 : T_C = 1:8$
Your Ratio: $T_1 : T_C = 1:$ ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

II O - I (Support) Ratio:
Self-Actualizing Average: $O:I = 1:3$
Your Ratio: $O:I = 1:$ ___

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

		VALUING		FEELING		SELF-PERCEPTION		SYNERGISTIC AWARENESS		INTERPERSONAL SENSITIVITY	
TIME COMPETENT Lives in the present	INNER-DIRECTED Independent, self-supportive	SELF-ACTUALIZING VALUE Holds values of self-actualizing people	EXISTENTI-ALITY Flexible in application of values	FEELING REACTIVITY Sensitive to own needs and feelings	SPONTA-NEITY Freely expresses feelings behaviorally	SELF-REGARD Has high self-worth	SELF-ACCEPTANCE Accepting of self in spite of weaknesses	NATURE OF MAN, CON-STRUCTIVE Sees man as essentially good	SYNERGY Sees oppo-sites of life as meaning-fully related	ACCEPTANCE OF AGGRESSION Accepts feelings of anger or aggression	CAPACITY FOR INTIMATE CONTACT Has warm interpersonal relationships
T_C	I	SAV	Ex	Fr	S	Sr	Sa	Nc	Sy	A	C

ADULT NORMS

| TIME INCOMPE-TENT Lives in the past or future | OTHER DIRECTED Dependent, seeks sup-port of others' views | Rejects values of self-actualiz-ing people | Rigid in application of values | Insensitive to own needs and feelings | Fearful of expressing feelings behaviorally | Has low self-worth | Unable to accept self with weaknesses | Sees man as essentially evil | Sees opposites of life as antagonistic | Denies feelings of anger or aggression | Has diffi-culty with warm inter-personal relations |

Standard Scores

Raw Scores

I · · · III
II · · · IV

and somewhat below on the existentiality, self-acceptance, nature of man, synergy and capacity for intimate contact scales. This is the group in which the students felt they were irrevocably marked as failures.

In Grade 10 (Table 11) all the scores are within the range of 40-50 standard scores for Group I, except the nature of man scale which elevates slightly into the self-actualizing range. Group II scores are all within the range of 40-50. Group III is slightly below the standard score of 40 on the item competent and synergy scales. Group IV is considerably below, nearer to a standard score of 30 on the time competent scales, and is also low on the existentiality, synergy and capacity for intimate contact scales.

Grade 9 scores (Table 12) tend to present a total picture of being lower than the scores for the other grades. This is perhaps partly due to their youth and narrower experiences than the older students. The Group I students are within the normal range on each of the scales. Group II is lower on time competent, existentiality and capacity for intimate contact. Group III is lower on time competent, inner-directed, existentiality, synergy and capacity for intimate contact scales. Group IV is lower on the time competent, inner directed, existentiality, self-acceptance, nature of man, synergy, and capacity for intimate contact scales. Students in all four groups seem to be similar in spontaneity and self-regard, feeling free to express their feelings in behavior and having a sense of self-worth.

The profile scales indicate that the students are, for the most part, within the normal range of tending toward self-actualization. As the students get older they appear to become more self-actualizing. The Grade 12 students can be said to be within the range of standard scores of 40-50. They have reached a point of general similarity, as would probably be expected for

students who are finishing high school and for whom efforts have been made to help realize their potential and find their place in the world as high school graduates.

Grade 11 students also indicate some similarity within the normal range, except for Group IV which did have unfortunate, dampening experiences. The profile of the Grade 10 students perhaps bears witness to the high status within the school which the honor groups are felt to hold. These students have been impressed with the value of their ability and achievement for two complete years, and they have not felt the leveling influence of mixture with students with other degrees of ability and achievement as have those in Grades 11 and 12. The other three Groups are similar except that Group IV is noticeably more time incompetent. Efforts were made to help the students in Group IV to accept themselves and to be appreciated for what they are. This may be a partial explanation of their similarity to Groups II and III. The profile of Grade 9 appears to be generally lower than that of the other grades, and the scores for each group are somewhat similar, although Group I scores are higher and Group IV scores lower in some instances. Perhaps these groups have not felt the impact of their status with only one year of high school, or perhaps their teachers and parents have not made them so aware of their group placement.

There could easily be many explanations for these differences. They may have nothing to do with grade level or grouping. The present explanations are offered merely as what seem to be the explanations of the results of this study conducted in one specific school. Further research of both wider and longitudinal natures are necessary before any real conclusions can be reached.

Ratio Scores

Due to the statistical complexities of ratio scores it is recommended that they be not used in statistical analyses. Therefore the individual scores for each of the twelve self-actualization concepts of the POI were used as the primary matter of the study. The ratio scores are given here to provide added meaning to the results of the Profile, as these scores are assumed to present a measure of the degree of self-actualization achieved. The ratio scores are two: time ratio and support ratio. A person does not always react in the same way and the ratio scores are designed to indicate the balance between his ways of reacting.

Time Ratio

The Time Ratio score is the ratio of Time Incompetence to Time Competence. The self-actualized persons appear to live more fully in the present and can be said to be time competent. He experiences a meaningful continuity between the past, present and future. He is not overburdened by guilt and resentment and holds rather realistic goals for the future. The self-actualized person is generally time competent, although there may be instances when he is time incompetent and does not make the best use of his time.

The non-self-actualized person is generally time incompetent, does not distinguish well between the past and future, and is excessively concerned with past and future in relation to the present. He is often past oriented, dwelling on guilt, regret, resentment or remorse; or future oriented, living with idealized goals, fears, plans, or expectations. The present-oriented person is a person who indulges in meaningless activity with little concentration. Neither the past nor the future influence him to any extent.

Table 13 presents the percentage of students who are self-actualizing, average, and non-self-actualizing according to results on the time incompetent-time competent ratio scores. The results indicate that the majority of students in the high school studied are not self-actualized, some students fall within the normal range, and a minority of students fall within the range of the self-actualized. It is also indicated that the percentage of students in the non-self-actualized group increases as the ability-achievement level of the group decreases, so that there are more students in the lower groups than in the higher groups who fall within the non-self-actualized range.

The percentage of self-actualized students decreases with the Group level in Grade 12. The percentage of students in the normal group between the self-actualized and non-self-actualized is highest in Group I, second highest in Group II, and the same for Groups III and IV. The number of non-self-actualized students increases as the group level decreases.

In Grade 11 the percentage of self-actualization decreases as the ability level decreases. The same gradation is seen in the normal level. At the non-self-actualization level the percentage of students increases as the level decreases. In Grade 11 there is a definite reversal in patterns between the group level and the degree of self-actualization.

In Grade 10, the percentage of the self-actualized decreases with the group level and there are none in Group IV who are in this category. The percentage of students in the average group decreases with the ability level of the group, and the number of non-self-actualized increases with the decrease in ability level.

In Grade 9 the number of self-actualized again decreases with the level of the group and in Group IV there is none. The percentages decrease in the

TABLE 13

TIME COMPETENCE RATIO
(Percentage)

Grade	9				10			
Group	I	II	III	IV	I	II	III	IV
Self-Actualizing (ratio-1:7.7)	7.57	5.94	2.43	0.00	21.42	3.78	5.95	0.00
Average (ratio-1:5.1)	28.78	10.89	9.75	5.88	35.71	13.63	9.52	3.33
Non-Self-Actualizing (ratio-1:2.9)	63.63	83.16	87.80	94.11	42.85	82.57	84.52	96.66
N	66	101	123	34	56	132	84	30
Grade	11				12			
Group	I	II	III	IV	I	II	III	IV
Self-Actualizing (ratio-1:7.7)	16.41	6.56	4.08	3.33	10.76	5.64	4.30	3.22
Average (ratio-1:5.1)	20.89	16.05	17.34	3.33	36.92	17.74	12.90	12.90
Non-Self-Actualizing (ratio-1:2.9)	62.68	77.37	78.57	93.33	52.30	76.61	82.79	83.87
N	67	137	98	30	65	124	93	31

normal group as the level of the group decreases and the percentage increase in the non-self-actualized group as the ability level decreases.

One consideration to be given to these scores, particularly to some of the high self-actualizing scores, is that some of the students may have felt the need to provide a halo effect and to make themselves appear to be more self-actualized than they really are.

It is noteworthy that for each grade the percentage of students in the groups varies consistently with the level of the group.

In general, it can be said that the majority of students are not self-actualized according to the time competent criteria.

Support Ratio

The support ratio is the ratio between the other-directedness and inner-directedness of the person. The other directed person is strongly motivated by the opinions of others and the acknowledgement of their approval of him. He tends toward conformity to the group and to be, to a greater of lesser degree, controlled by fear of deviating from the approving group.

The inner directed person is one who goes through life somewhat independently, motivated by his own inner resources which have been developing since early childhood. Parental influence at first, and that of other authority figures later, have helped the inner directed person to establish certain basic principles by which he guides his actions. The inner directed person is motivated more by inner resources than by external influences of others.

The self-actualized person is the happy medium somewhere between the extreme inner-directed and the extreme outer-directed. He is self-supportive to a large measure and is essentially directed by his inner resources, but he

is sensitive to the feelings, approval, affection and acceptance of others. He is free with a confidence and security in his manner of living.

Table 14 presents the percentage of the self-actualizing, normal and non-self-actualizing students for each grade and group as determined by the support ratio. Here as with the time ratio it is suggested that the majority of students are not self-actualized as measured on the POI.

According to the ratio scores there is a higher percentage of students in Group II of Grade 12 who are self-actualized than in Group I. This may be possibly explained in that Group I students are motivated by trying to please others and keep their status as honor students, while those in Group II are secure with their mental ability, but have not set such high standards for themselves and others do not expect the achievement from them that they do of the students in Group I. Group I students have had it drilled into them that they are supposed to be first rate in everything. In order to keep that image, they perhaps tend to be too much controlled by the influence of others. Group III has a smaller number than Group I and there are no students in Group IV in the self-actualizing category. Students in Group II have a higher percentage within the average range than do the students in Group I. Groups III and IV have less than Group I in relative order. Group II has a lower percentage in the non-self-actualized category, and the other groups have increasing percentages according to the decrease in ability level, Group IV having the highest percentage of non-self-actualizing students.

In Grade 11 neither Groups I nor IV have any students in the self-actualizing range. This is understandable in the light of the expectancies of both Groups. Group I is directed toward success by others, parents, teachers and peers, to keep up the image. Group IV has been influenced by the idea that

TABLE 14

SUPPORT RATIO
(Percentage)

Grade	9				10			
Group	I	II	III	IV	I	II	III	IV
Self- Actualizing 1:3.6	3.03	0.00	0.81	0.00	7.14	3.03	1.19	0.00
Average 1:2.6	19.69	13.86	10.56	0.00	33.92	12.12	16.66	13.33
Non-Self- Actualizing 1:1.8	77.27	86.13	88.61	100.00	58.92	84.84	82.14	86.64
N	66	101	123	34	56	132	84	30
Grade	11				12			
Group	I	II	III	IV	I	II	III	IV
Self- Actualizing 1:3.6	0.00	2.91	3.06	0.00	1.53	2.41	1.07	0.00
Average 1:2.6	37.31	27.73	21.42	3.33	15.38	20.16	11.82	9.67
Non-Self- Actualizing 1:1.8	62.68	69.34	75.51	96.66	83.07	77.41	87.09	90.32
N	67	137	98	30	65	124	93	31

not much is to be expected of them because they have not much to give. They are the Group who felt so keenly the rejection from the language class. Group III has a higher percentage than Group II. In the average range there is a gradation of higher to lower percentage according to the Group level. In the non-self-actualizing range there is a reverse gradation of percentages the lowest percentage being in the highest group.

In Grade 10 the self-actualizing range has a larger percentage of students in Group I, smaller in Group II, still smaller in Group III and none in Group IV. In the average range according to percentages the groups rank I, III, IV and II. In the non-self-actualized range the percentages again do not follow the pattern which would be expected from that set by the other groups. Here Group I is lowest, then Group III, II and IV, in that order. The reason for Group II being lower than Groups III and IV on the average level and higher than Group III on the non-self-actualized level would be material for another study.

In Grade 9 in the self-actualizing range Group I has the highest percentage, Group III a very small percentage, and Groups II and IV none. In the average range Group I, II and III have descending percentages and Group IV has none.

In the non-self-actualizing range there is a gradual increase in percentage with the decrease in ability group up to 100% for Group IV.

The support ratio scores indicate that the majority of students are non-self-actualizing. Differences between the group levels are more evident here than on the twelve scales of the POI when tested for significant difference.

The fact that these students are in their adolescence and still forming their ideas and principles to some degree may have a bearing on their scores.

Nevertheless, it seems that serious efforts should be made to help them to become more inner directed and less dependent upon others for their motivation. The strong influence of need for approval of parents and teachers, and the drive for peer conformity cannot be discounted for this age group.

These results indicate that there is a difference in degree of self-actualization between students grouped according to ability. A great deal of further study is needed before decisions can be made as there is little previous work in this area and this concerns students from only one school. How much the influence of the teachers has affected students attitudes is something to be considered also.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Purpose of Study

The purpose of this study is to investigate personality differences among students who have been grouped homogeneously, according to ability and achievement, for their classroom instruction. Determination of the curriculum placement was made by consideration of intelligence quotient as measured by the high school placement test, composite achievement test scores on the same test, eighth grade report card marks and achievement test scores, and recommendations of eighth grade teachers and elementary school principals.

This study is concerned primarily with the area of social and personal aspects of development. It is concerned specifically with the area of self-actualization as measured by the Personal Orientation Inventory designed by Everett L. Shostrom. It is commonly thought that all normal people tend toward self-actualization. The effects others have on them can do much to influence its growth.

It seems that in the educational environment much concentration is on the bright students who are given various manifestations of approval and encouragement through praise. The slower pupils are beginning to receive an increased interest and efforts are being made to give them a feeling of success and accomplishment. The average students are the solid, often forgotten, citizens of the schools. Students are classified on objective evidence, and both teachers

126

and students tend to treat this classification as an identification symbol. As a result, students are treated as a certain group, with specific ability and achievement level, and are not considered as individuals. Personality development frequently suffers. It is hoped that the results of this study will shed some light on the effectiveness of ability grouping on the development of the total person, and that they will provide matter for consideration by teachers who desire a better understanding of their students.

Three concerns led to the decision of making a study regarding the aspects of self-actualization present in students of different ability-achievement groups: (1) the realization that many of the problems of today's youth stem from a failure in communication with adults because adults, though well meaning, do not know how the adolescent really feels; (2) an awareness of the *Results invalidated by* strong identification of students with their curriculum grouping and the status that grouping held within the school; (3) the absorption by students with ideas of their self-fulfillment, self-acceptance and relationships with others.

The Personal Orientation Inventory was chosen because it included many of the topics which seemed to be on the minds of the students. The inventory includes the following twelve scales: time competent, inner directed, self-actualizing value, existentiality, feeling reactivity, spontaneity, self-regard, self-acceptance, synergy, attitude toward the nature of man, acceptance of feelings of aggression and capacity for warm personal relationships.

Procedure

Since the intention was to obtain data from a cross section of the school, and it would be difficult to select an appropriate sampling because of the great variation among the members of the student body, it was decided to ask the students who were interested to volunteer to participate in the study.

Students were told the counselor was doing a study concerning the student body for her degree work, and would appreciate the assistance of anyone who was willing to give up a study period in order to take a personality inventory. Three days were set aside for each grade. Answer sheets for a total of 1,271 students were scored and tabulated. Statistical computation was accomplished at the Data Processing Center of Loyola University, where t scores were determined.

The students in each of the four grades are divided into ten curriculums, according to ability and achievement. For the purposes of this study they were combined into four groups. Group I contained the two honor curriculums, Group II the above average students, Group III the average students, and Group IV contained the low averaged or basic students.

T scores were compared for each group within each grade. Each grade was treated separately because of differences in age and grade level.

Since it was hoped that the results of this study would be beneficial to teachers it was decided that an investigation into the backgrounds of the students for the purposes of providing facts that could be easily understood and which would give evidence of the truth that ability-achievement group students are not completely homogeneous, as many teachers are inclined to suppose, data were compiled concerning nationality, place of residence, size of family, and occupational and educational levels of parents. The results of this part of the study indicated that the students were really heterogeneous within their groups, and perhaps homogeneous throughout the grades in regard to environment and background. An attempted study of teacher personality ratings revealed that a large number of students had not received evaluation checks from even five of their seven teachers and that cases which did have sufficient marks

definitely had evidence of halo effect, the brighter students receiving the better ratings and those lower in ability and achievement receiving the inferior ratings.

Hypothesis

The hypothesis of this study states that there is no significant difference in response to the twelve self-actualization concepts of the Personal Orientation Inventory when comparing:

A. The four groups of Grade 12 students
B. The four groups of Grade 11 students
C. The four groups of Grade 10 students
D. The four groups of Grade 9 students.

The results on each scale are considered individually for each group within each of the four grades.

Results

The t-test revealed the presence of differences between groups. These results refer only to the group themselves as they are being discussed within the grade. Each of the twelve areas of self-actualization measured by the Personal Orientation Inventory is treated separately for each grade.

Grade 12

1. Time Competence

A significant difference was found to exist at the 1% level between Group I and each of the other three groups on the time competence scale, thus making it necessary to reject the null hypothesis for Group I. The null hypothesis is supported for Groups II - III, II - IV, and III and IV.

2. <u>Inner-directed</u>

The null hypothesis is rejected at the 5% level for Groups II and III, where Group II scored as the more inner-directed. The hypothesis is accepted for each of the other group combinations.

3. <u>Self-actualizing value</u>

The hypothesis that no significant difference exists between the groups is accepted regarding the self-actualizing value scale.

4. <u>Existentiality</u>

A significant difference at the 5% level was found to exist between Groups I and IV, and at the 1% level between Groups II and III, and II and IV. No significant differences were found between Groups I and II, I and III, and III and IV, thus the hypothesis is accepted for these groups.

5. <u>Feeling reactivity</u>

At the 5% level of significance a significant difference exists between Groups I and II. There are no other significant differences.

6. <u>Spontaneity</u>

The null hypothesis is upheld on the spontaneity scale where there are no significant differences between the groups.

7. <u>Self-Regard</u>

The null hypothesis is rejected in three out of the six combinations of groups on the self-regard scale. The difference is significant at the 5% level between Groups I and II, with Group I having the higher score. A 1% level difference exists between Groups II and IV and III and IV with Group IV having the higher scores in each case.

8. <u>Self-Acceptance</u>

Significant differences at the 1% level of significance exist between Groups I and III and between II and III, with Group III having the lower score in both instances. Thus the hypothesis is rejected for these two combinations and accepted for the other four combinations of groups.

9. <u>Nature of Man</u>

Group I is significantly higher than the other groups at the 1% level of significance. There are no significant differences between the other combinations of groups.

10. <u>Synergy</u>

Group I is significantly higher than the other groups at the 5% level. There is no other significant difference in comparing the groups.

11. <u>Acceptance of Aggression</u>

The only significant difference here exists at the 5% level between Groups II and III, with Group II having the higher score.

12. <u>Capacity for Intimate Contact</u>

The only significant difference for this second scale of interpersonal sensitivity exists at the 5% level again between Groups II and III, with Group II again having the higher score.

The six group combinations for each of the twelve scales provide a possibility of 72 scores for each grade. For Grade 12, 21 of these 72 t-scores were statistically significant. Therefore in 21 of the 72 possible instances the null hypothesis is rejected. From the results we can conclude that differences do exist between some of the groups on some of the scales measuring self-actualization. Group I seems to have obtained higher scores in the majority (12 out of 21) of combinations where a difference was found to exist.

Therefore it may be assumed that judging from these results on the POI the honor students in Grade 12 are tending more toward self-actualization than the other groups of that grade. There is insufficient evidence to make a statement about Groups II, III and IV.

Grade 11

1. Time Competent

On the time competent scale the null hypothesis is rejected in five out of the six combinations. It is rejected at the 5% level between Groups I and II, and at the 1% level between Groups I and III, I and IV, II and IV and III and IV, where in each case the higher group has the higher score. There is no significant difference between the scores on Groups II and III.

2. Inner-directed

Significant differences exist on the inner directed scale between Groups I and III at the 5% level. Significant differences exist between Groups I and IV, II and IV and III and IV at the 1% level. There is no significant difference between Groups I and II and between II and III.

3. Self-actualizing Value

The only significant difference on the self-actualizing value scale occurs between Groups I and IV at the 1% level of significance.

4. Existentiality

Significant differences exist between Groups I and III at the 5% level and between Groups I and IV and II and IV at the 1% level.

5. Feeling Reactivity

On the feeling reactivity scale the null hypothesis is rejected in two cases at the 5% level. Groups I and II both have significantly higher scores than Group IV. There are no other significant differences.

6. Spontaneity

The null hypothesis is accepted for all groups on this scale as there are no significant differences.

7. Self-Regard

The null hypothesis is accepted for all groups on the self-regard scale as there are no significant differences between the scores obtained by the groups.

8. Self-acceptance

The null hypothesis is rejected at the 1% level between Groups I and IV, and between III and IV and at the 5% level between Groups II and IV on the self-acceptance scale. Thus, all other groups are significantly higher than Group IV on this scale.

9. Nature of Man

Significant differences are found on five of the six combinations of groups on the nature of man scale. Difference is significant at the 1% level between Groups I and III, I and IV, II and III and II and IV, and at the 5% level between Groups III and IV. No significant difference exists between Groups I and II.

10. Synergy

The null hypothesis is rejected in three combinations on the synergy scale. Difference at the 5% level exists between Groups I and II and between II and IV. Difference at the 1% level exists between Groups I and IV.

11. Acceptance of Aggression

The null hypothesis is accepted for all combinations of groups as there is no significant difference between them.

12.   Capacity for Intimate Contact

Significant differences exist at the 5% level between Groups I and IV and between II and IV, with Group IV having the lower scores in both cases. There is no other significant difference.

Significant differences exist in 28 of the 72 possibilities for such differences among the groups in Grade 11. Thus, the null hypothesis that no significant difference exists between groups is rejected in 28 of the 72 possibilities. The hypothesis is accepted for the spontaneity, self-regard and acceptance of aggression scales for which no significant differences were found. Overall differences indicate that Group I tends more toward self-actualization than do the other groups, and Group II more so than Groups III and IV. It is also indicated that Group IV has the least tendency toward self-actualization as determined by the inventory.

Grade 10

1.   Time Competence

The null hypothesis is rejected for five of the six combinations on the time competence scale. Significant differences at the 1% level were found to exist between Groups I and II, I and III, I and IV, II and IV and III and IV. No significant difference exist between Groups II and III.

2.   Inner-Directed

On the inner directed scale significant differences at the 1% level were found between Group I and each of the other three Groups. Thus, the null hypothesis is rejected for three groups and accepted for three groups on this scale.

3. <u>Self-Actualizing Value</u>

Significant differences were found at the 5% level between Groups I and II and at the 1% level between Groups I and III. There were no other significant differences.

4. <u>Existentiality</u>

Differences were significant at the 1% level between Groups I and II and between I and IV, and at the 5% level between Groups III and IV.

5. <u>Feeling Reactivity</u>

Between Groups I and II a significant difference at the 5% level was found, to exist and at the 1% level between Groups I and III. There were no other significant differences.

6. <u>Spontaneity</u>

The null hypothesis is accepted for the spontaneity scale in which no significant differences were found.

7. <u>Self-Regard</u>

The null hypothesis is accepted for the self-regard scale for which no significant differences between groups were found to exist.

8. <u>Self-acceptance</u>

On the self-acceptance scale significant differences exist at the 1% level between Group I and each of the other three groups. There is no significant difference in the other three combinations.

9. <u>Nature of Man</u>

Significant difference at the 1% level exists between Group I and each of the other groups on the nature of man scale.

10. Synergy

On the synergy scale a significant difference was found at the 5% level between Groups I and II and between I and IV, and at the 1% level between Groups I and III.

11. Acceptance of Aggression

Significant differences were found to exist at the 1% level between Groups I and III and I and IV.

12. Capacity for Intimate Contact

Significant differences existed on this scale between Groups I and II and between I and IV at the 1% level and between Groups I and III at the 5% level of significance.

There are 29 instances of significant differences in scores of Grade 10 out of the 72 possibilities. On six of the twelve scales Group I is significantly higher than each of the other three groups. These scales are: time competent, inner directed, self-acceptance, nature of man, synergy, and capacity for intimate contact.

On the self-actualizing value, existentiality, feeling reactivity, and acceptance of aggression scales Group I is significantly higher than two out of the three combinations. The only other differences between groups exist between II and IV and between III and IV on the time competent scale and between III and IV on the existentiality scale. Thus, evidence indicates that Group I in Grade 10 has a greater tendency toward self-actualization than the other three groups in that grade.

Grade 9

1. Time Competence

Significant differences were found to exist at the 1% level of sig-
nificance between Group I and each of the other three groups. There were no
significant differences between the other groups.

2. Inner-Directed

Between Groups I and IV a significant difference was found at the 5%
level. There were no other significant differences.

3. Self-actualizing Value

Significant difference at the 5% level was found to exist between
Groups I and III.

4. Existentiality

A difference significant at the 1% level was found to exist between
Groups I and IV, and differences at the 5% level between Groups II and IV and
between III and IV, indicating that scores for all other groups were higher
than those of Group IV.

5. Feeling Reactivity

The only significant difference in this scale exists at the 5% level
between Groups II and III, with Group III having the higher score.

6. Spontaneity

There are no significant differences on this scale. The null hypothe-
sis is accepted.

7. Self-regard

The null hypothesis is accepted for all combinations as there are no
significant differences on this scale.

8. <u>Self-Acceptance</u>

The null hypothesis is accepted for this scale as there are no signif-
icant differences.

9. <u>Nature of Man</u>

The null hypothesis is rejected at the 5% level for combinations of
Group I and III and between I and IV. There are no other significant differ-
ences.

10. <u>Synergy</u>

Significant differences exist at the 5% level between Groups I and IV,
and at the 1% level between Groups II and III and between II and IV. There are
no other significant differences.

11. <u>Acceptance of Aggression</u>

There are no significant differences on this scale. The null hypothe-
sis is accepted for all combinations.

12. <u>Capacity for Intimate Contact</u>

One significant difference existed on this scale at the 1% level be-
tween Groups I and IV.

There were 15 statistically significant scores out of the 72 possibilities
for Grade 9. Of the fifteen, ten indicate higher scores for Group I, thus in-
dicating that the Group I students were more inclined toward self-actualization
at the time of the inventory than were the students on the other groups.

<u>Summary of Results</u>

The null hypothesis that there is no significant difference in responses
to the twelve self-actualization concepts of the Personal Orientation Inventory
when comparing:

A. The four groups of Grade 12 students
B. The four groups of Grade 11 students
C. The four groups of Grade 10 students
D. The four groups of Grade 9 students

is rejected for 21 of the 72 combinations of Grade 12
28 of the 72 combinations of Grade 11
29 of the 72 combinations of Grade 10
15 of the 72 combinations of Grade 9

and is accepted for 51 of the combinations of Grade 12
44 of the combinations of Grade 11
43 of the combinations of Grade 10
57 of the combinations of Grade 9.

These results indicate that some differences do exist between the students in
the four groups, but that there are also strong similarities between the
groups.

Profile Sheets

The profile sheet demonstrates the degree of attitudes and values compared
with those of self-actualizing people. The plotted scores of each of the
grades indicate that the students are generally within the normal range of
adults who are striving toward self-actualization.

Ratio Scores

Ratio scores of time competent - time incompetent and other directed -
inner-directed indicate that the majority of the students are not self-
actualizing at the time of the inventory.

Implications

The ratings obtained from the inventory are suggestive but not conclusive.
They should be considered in the light of additional information regarding the
subjects.

Data concerning the background of the students indicates that the groups
are composed of a heterogeneous combination of hereditary and environmental

influences. Although the students are grouped according to ability and achievement, they must not be considered by their teachers to be homogeneous within the classroom. This is imposing a mentality which is unrealistic and which ignores the total person, as mental ability and achievement are only one aspect of life. The frequent general similarity, and lack of significant difference between the groups within a grade may be due to their sharing the same types of heterogeneous personal backgrounds.

Although there is general similarity, differences do exist frequently in favor of Group I, which may be explained in part by the strong positive self-image instilled in these students by their teachers. Perhaps the teachers need to help the students at other levels to develop this same degree of positive thinking toward their ability and achievement, to help all students to realize that if they are doing their best that is all that can be expected of them, regardless of the level of their potential. There are various types of gifts, each person has unique ones. The gifts of the intellect are perhaps overemphasized in the school situation and those of other types left undeveloped, or even unexplored.

It is conceivable that the students in Group I are more self-actualizing because of their higher mental endowment, but very concrete experience with the individuals makes the explanation of teacher, parent and peer influence quite plausible also. The lower scores of the slower students can also be explained by the influence of the attitudes of others.

Although each grade has been handled as a separate entity in this study and no statistical correlations between grades have been attempted, it is relevant to note that differences, perhaps significant ones, appear to exist between the students in Grades 9 and 10 and those in Grades 11 and 12. This is

particularly observable when comparing the results on the profile sheets. While the ascending and descending score profile patterns are generally parallel the Grade 12 patterns indicate that these students have reached a point of general similarity within the 40-50 standard score range. Grade 11 patterns also tend toward similarity although as previously indicated Group IV is noticeably lower than the other groups. The profile of Grade 10 does not share the pattern of similarity where Group I is obviously higher than Groups II, III and IV. On the Grade 9 profile, although there is a parallel pattern, the profile appearance is observably lower than those of the other three grades. These differences of Grades 9 and 10 when compared to Grades 11 and 12 suggest the possibility that grouping with education geared to ability in combination with increased maturity and age might possibly have a positive affect upon personality development.

Since ability-achievement grouping has proved valuable to students at all levels when properly handled, and nothing better has been suggested which can be both generally and practically implemented, it seems that parents and educators would do well to develop attitudes of acceptance of all students, regardless of their ability level and this attitude would automatically pass on to the students.

Another possible solution, which has been tried with success in some situations, is to group each student according to ability and achievement for each subject so that each student's program is unique. Most administrators do not feel they have the personnel and time which this would require. This would give the advantage of having the students learn according to their own level and at the same time avoid the disadvantage of the label of being fixed in a certain group.

It is of course not expected that adolescents would have the level of self-actualizing tendencies of adults. This should be remembered in considering the results. At the same time these scores do give evidence of the tendencies of high school students and can be used as a basis for steps directed toward improvement of self-actualization achievement. Teachers would perhaps do well to consider the areas in which they can assist the students to become more self-actualized. It seems that self-acceptance may be one place to start. Students who can accept themselves, are usually able to live in the present, to accept life as it is and to be less afraid to give of themselves in interpersonal relationships. There seems to be a parallel also between self-acceptance and inner-directedness. Therefore, if teachers and parents can realize themselves and truly believe that a person's worth and potential contributions to society depend upon the use of, more than upon the degree of individual ability and capacity and can impart this conviction to youth, we will have adults in the future who are more self-actualized than their predecessors.

This study is one small attempt to discover means of helping adolescents to become better understood, appreciated and encouraged by presenting data which shows us as adults something about their attitudes which we seldom have time to investigate.

Further research needs to be done on the study of self-actualization and adolescents. Perhaps studies comparing boys and girls, comparing grade levels, additional studies regarding curriculum levels, and longitudinal studies would be of particular practical interest.

In the meantime, it may be profitable to reflect on this relevant message:

Once the idea becomes central in our culture that a man is at his best when he is doing his best at what he can do best, many of the present hindrances to a sound maturing will be removed. To mature is to bring

one's powers to realization. To waste those powers, or to force
individuals to try to exhibit powers they do not possess, is to de-
feat the maturing impulse of life.

This point of view about aptitude is of special importance to the
schools. In the main, schools have been a kind of aptitude melting
pot. All the different special strengths of individual students have
been thrown in together and melted down into an undifferentiated
mass....the years of schooling, from nursery school to adult educa-
tion, can become years, not of flattening out the individual into the
"average," but of building him up into the uniqueness of his own
powers. As more and more members of our society are thus built up,
we will have as a cultural asset more and more people who enjoy the
processes that lead to maturity and who begin to glimpse the fact
that the movement toward maturity is the movement toward happiness.

The characteristic of the mature person is that he affirms life. To
affirm life he must be involved, heart and soul, in the process of
living. Neither the person who feels himself a failure nor the person
who consciously or unconsciously resents what life has done to him can
feel his heart and soul engaged in the process of living. That ex-
perience is reserved for the person whose full powers are enlisted....
to mature the person must know what his powers are and must make them
competent for life.[91]

Here we have a glimpse into the practical meaning of self-actualization.

_____

[91] H. A. Overstreet, The Mature Mind (New York: W. W. Norton and Co., Inc.,
1959), pp. 34-35.

BIBLIOGRAPHY

Encyclopedias

Harris, Chester W. (ed.), <u>Encyclopedia of Educational Research</u>. Third Edition.
     New York: Macmillan Company, 1960.

Monroe, Walter S. (ed.), <u>Encyclopedia of Educational Research</u>, Revised Edition.
     New York: Macmillan Company, 1950.

Smith, Edward M., Krouse, Stanley W. and Atkinson, Mark M., <u>The Educator's
     Encyclopedia</u>. New Jersey: Prentice-Hall, Inc., 1961.

Books

Allport, G. W., <u>Becoming</u>. New Haven, Conn.: Yale University Press, 1960.

Blos, Peter., <u>On Adolescence</u>. New York: Free Press of Glencoe, Macmillan
     Company, 1963.

Coleman, James S., <u>Adolescents and the Schools</u>. New York: Basic Books Inc.,
     1965.

Coleman, James S., <u>The Adolescent Society</u>. New York: Free Press of Glencoe,
     Macmillan Company, 1961.

Conant, James B., <u>The American High School Today</u>. New York: McGraw-Hill Book
     Company, 1959.

Doll, Ronald C. (ed.), <u>Individualizing Instruction</u>. Washington: Association
     Supervision and Curriculum Development, NEA, 1964.

Green, Elizabeth, Lowe, Jeanne R. and Walker, Kenneth (eds.), <u>Man and the
     Modern City</u>. Pittsburg, Pennsylvania: University of Pittsburg Press,
     1963.

Grinder, Robert E., <u>Students in Adolescence</u>. New York: Macmillan, 1963.

Henry, Nelson B. (ed.), <u>Individualizing Instruction: The Sixty-first Yearbook
     of the National Society for the Study of Education</u>. Chicago: University
     of Chicago Press, 1962.

Hilgard, Ernest R. (ed.), Theories of Learning and Instruction, Sixty-third Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1964.

Maslow, Abraham H., Motivation and Personality. New York: Harper and Row Publishers, 1954.

Maslow, Abraham H. (ed.), New Knowledge in Human Values. New York: Harper and Row, 1959.

Maslow, Abraham H., Toward a Psychology of Being. Second Edition. New Jersey: D. Van Nostrand Company, Inc., 1968.

Overstreet, H. A., The Mature Mind. New York: W. W. Norton and Company, Inc., 1959.

Rogers, Carl R., On Becoming a Person. Boston: Houghton Mifflin Company, 1961.

Rosenberg, Morris, Society and the Adolescent Self-Image. New Jersey: Princeton University Press, 1965.

Schneiders, Alexander A., Personality Development and Adjustment in Adolescence, Revised Edition. Milwaukee, Wisconsin: Bruce, 1960.

Seidman, J. M., The Adolescent. New York: Holt, 1960.

Shostrom, Everett L., Man, the Manipulator. New York: Bantam Books, Inc., 1968.

Shostrom, Everett L., Manual: Personal Orientation Inventory: An Inventory for the Measurement of Self-Actualization. San Diego: Educational and Industrial Testing Service, 1966.

Warner, William Lloyd, Meeker, Marchia and Eells, Kenneth, Social Class in America. New York: Harper and Brothers, 1960.

Articles

Aherns, M. and Fair, J., "Grouping in the Senior High School," National Educational Association Journal, XLVIII (May, 1959), 24-26.

Baughman, M. Dale and Schoonmaker, David, "Grouping Practices in Junior High," The Clearing House, XXXVI (October, 1961), 111-114.

Campanelle, Thomas, "Motivational Development of Adolescents," Education, LXXXV (January, 1965), 310-313.

Carlson, Rae, "Stability and Change in the Adolescent's Self Image," Child Development, XXXVI (September, 1965), 659-666.

Carmical, LaVerne, "Characteristics of Achievers and Underachievers of a Large Senior High School," Personnel and Guidance Journal, XLIII (December, 1964), 390-395.

Carmical, LaVerne, "Five Basic Responsibilities of the Classroom Teacher," The Clearing House, XXXVIII (January, 1964), 307-308.

Chittister, Sister Mary Peter, "The Non-Graded Educational System: An Analysis," Catholic Educational Review, LXV (December, 1967), 582-589.

Clark, Leonard H., "Ability Grouping - A Third Look!" Bulletin of NASSP, XLVII (December, 1963), 69-71.

Conant, J. B., "Another Look at the Comprehensive High School," NEA Journal, LI (May, 1962), 29-30.

Culbert, Samuel A., Clark, James V. and Bobele, H. Kenneth, "Measures of Change Toward Self-Actualization in Two Sensitivity Training Groups," Journal of Counseling Psychology, XV (January, 1968), 53-57.

Dandes, Herbert M., "Psychological Health and Teaching Effectiveness," The Journal of Teacher Education, XVII (Fall, 1966), 301-306.

DeHaan, Robert F. and Doll, Ronald C., "Individualization and Human Potential," Individualizing Instruction (edited by Ronald C. Doll). (Washington: Association for Supervision and Curriculum Development, NEA, 1964), 9-28.

de Vise, Pierre, "Suburbia's Totem Pole," Chicago Daily News (Monday, May 8, 1967), 46.

Dice, Kathryn L., "Unmet Needs of High School Students," Educational Leadership, XVI (December, 1958), 169-175.

Diedrich, Richard C. and Jackson, Philip W., "Satisfied and Dissatisfied Students," Personnel and Guidance Journal, XLVII (March, 1969), 641-649.

Drews, Elizabeth Monroe, "Counseling for Self Actualization in Gifted Girls and Young Women," Journal of Counseling Psychology, XII (Summer, 1965), 167-175.

Dyson, Ernest, "A Study of Ability Grouping and the Self-Concept," The Journal of Educational Research, LX (May-June, 1967), 403-405.

Edwards, T. Bentley and Wilson, Alan B., "Attitudes Toward the Study of School Subjects," Educational Theory, VIII (October, 1958), 275-283, 285.

Elden, Glen H., Jr., "Life Opportunity and Personality: Some Consequences of Stratified Secondary Education in Great Britain," Sociology of Education, XXXVIII (Spring, 1965), 184-185.

Engel, Mary, "The Stability of the Self Concept in Adolescence," Journal of Abnormal and Social Psychology, LVIII (March, 1959), 211-215.

Fagan, Edward R., "The Neglected Ones," Clearing House, XXXVIII (February, 1964), 323-328.

Fink, Martin B., "Self-Concept As It Relates to Academic Underachievement," California Journal of Educational Research, XIII (March, 1962), 57-62.

Foulds, Melvin L., "Self-Actualization and the Communication of Facilitative Conditions during Counseling," Journal of Counseling Psychology, XVI (Marcy, 1969), 132-136.

Gilchrist, Robert S., "Organizing for Maximum Development of Each Individual," NASSP Bulletin, XLVI (May, 1962), 51-55.

Goodison, Jules M. and Adams, James F., "Personality Factors and Academic Achievement," The School Counselor, XI (March, 1964), 144-148.

Hall, Alice, "Ability Grouping Is Democratic," The Clearing House, XL (November, 1965), 159-160.

Hallworth, H. J., "Teacher's Personality Ratings of High School Pupils," Journal of Educational Psychology, LII (December, 1961), 297-302.

Hardin, Garrett. "Biology and Individual Differences," Individualizing Instruction: The Sixty-first Yearbook of the National Society for the Study of Education (edited by Nelson B. Henry). (Chicago: University of Chicago Press, 1962), 11-24.

Hoover, Kenneth H. and Hoover, Helena M., "A Plan for Grouping in the Secondary Classroom," Education, LXXXVIII (February, 1968), 208-212.

Hosmanek, John J. and Huettner, Otto F., "The ABC of Grouping," Bulletin of the NASSP, XLV (February, 1961), 115-116.

Howell, Wallace J., "Grouping of Talented Students Leads to Better Achievement in the Secondary School," The Bulletin of the NASSP, LXVI (March, 1962), 67-73.

Impellitteri, Joseph T., "Predicting Academic Achievement with the High School Placement Test," Personnel and Guidance Journal, XLVI (October, 1967), 140-143.

Jackson, Philip W. and Getzels, Jacob W., "Psychological Health and Classroom Functioning: A Study of Dissatisfaction with School among Adolescents," Journal of Educational Psychology, L (December, 1959), 295-300.

Klavettes, Robert E. and Mogar, Robert E., "Stability and Internal Consistence of a Measure of Self-Actualization," Psychological Reports, XXI (October, 1967), 422-424.

Kolson, Clifford J., "A Workable Approach to Grouping," The Clearing House, XXXVI (May, 1962), 539-542.

Lass, Abraham H. Summary of a presentation on "A New Issue in Grouping - vertical Enrichment vs. Horizontal Enrichment," The Bulletin of the NASSP, XLV (April, 1961), 205.

Leib, Jere W. and William U. Snyder, "Effects of Group Discussions on Underachievement and Self-Actualization," Journal of Counseling Psychology, XIV (May, 1967), 282-285.

Marie, Sister Helen, OSF, "Working to Capacity," Catholic School Journal, LXII (March, 1962), 28.

Metcalf, Harold H. Summary of presentation on "A New Issue in Grouping - Vertical Enrichment vs. Horizontal Enrichment," The Bulletin of the NASSP, XLV (April, 1961), 206.

Musselman, Dayton L., "Grades and Halos," Clearing House, XLII (September, 1967), 26-28.

Noyes, Kathryn Johnston and McAndrew, Gordon L., "Is This What Schools Are For?" Saturday Review, LI (December, 1968), 58-59.

Olsen, Jim., "Should We Group By Ability?" The Journal of Teacher Education, XVIII (Summer, 1967), 201-205.

Peters, Herman J., "Processes of Personal Developing in Adolescence," Adolescence, VIII (Winter, 1967-68), 435-444.

Polglaze, Robert, "A Guide for Grouping," The Clearing House, XXXVI (September, 1961), 51-53.

Rasmussen, Glen R., "Our Common Neglect of Individual Differences," Clearing House, XXXVII (September, 1962), 3-7.

Roberts, Helen Erskine, "Factors Affecting the Academic Underachievement of Bright High School Students," Journal of Educational Research, LVI (December, 1962), 175-183.

Rochester, Dean E., "Will the Real Over-Achiever Please Stand Up?" Newsletter, Illinois Guidance and Personnel Association, XXII (Winter, 1967), 36-37.

Russell, James W., "The Mark of the Best," The Bulletin of the NASSP, XLV (February, 1961), 112-114.

Schrank, Major Wilburn R., "A Comparison of Academic Achievement in Mathematics of Ability Grouped Versus Randomly Grouped Students," The Journal of Educational Research, LXII (November, 1968), 126-129.

Schrank, Major Wilburn R., "The Labeling Effect of Ability Grouping," The Journal of Educational Research, LXII (October, 1968), 51-52.

Sears, Pauline S. and Hilgard, Ernest R., "The Teacher's Role in the Motivation of the Learner," Theories of Learning and Instruction, Sixty-third Yearbook of the National Society for the Study of Education (edited by Ernest R. Hilgard). (Chicago: University of Chicago Press, 1964), 182-209.

Sheehy, Sister Gregory, "Homogeneous Grouping: A Dangerous Procedure," Catholic Educational Review, LXV (February, 1967), 114-117.

Shostrom, Everett L., "An Inventory for the Measurement of Self-Actualization," Educational and Psychological Measurement, XXIV (Summer, 1964), 207-217.

Shostrom, Everett L. and Knapp, Robert R., "The Relationship of a Measure of Self-Actualization (POI) to a Measure of Pathology (MMPI) and to Therapeutic Growth," American Journal of Psychotherapy, XX (January, 1966), 193-202.

Sierles, Samuel, "The Slow Learner Can Learn," Clearing House, XXXVI (February, 1962), 361-363.

Southworth, Robert S., "The 'Average' Student: An Educational Nonentity?" The Clearing House, XL (February, 1966), 323-328.

Taylor, Ronald G., "Personality Traits and Discrepant Achievement: A Review," Journal of Counseling Psychology, XI (Spring, 1964), 76-82.

Tompkins, Ellsworth, "Individual Differences in the 1960's--Their Implications for School Administrators," Bulletin of the NASSP, XLVI (April, 1962), 1-7.

Tyler, Fred T., "Intraindividual Variability," Individualizing Instruction: The Sixty-first Yearbook of the National Society for the Study of Education (edited by Nelson B. Henry). (Chicago: University of Chicago Press, 1962), 164-174.

Urevick, Stanley J., "Ability Grouping: Why Is It Undemocratic?" The Clearing House, XXXIX (May, 1965), 530-532.

Walberg, Herbert J. and Anderson, Gary J., "Classroom Climate and Individual Learning," Journal of Educational Psychology, LIX (December, 1968), 414-419.

Watson, William C., "Helping Adolescents to Achieve Maturity: Opportunity and Challenge for the Secondary School Teacher," Chicago School Journal, XLIV (February, 1963), 209-216.

Wilhelms, Fred T., "The Curriculum and Individual Differences," Individualizing Instruction: The Sixty-first Yearbook of the National Society for the Study of Education (edited by Nelson B. Henry). (Chicago: University of Chicago Press, 1962), 62-74.

Wilhelms, Fred T., "Using the Curriculum to Build Personal Strength," The Bulletin of the National Association of Secondary School Principals, XLVIII (January, 1964), 90-115.

Williams, Robert L. and Cole, Spurgeon, "Self-Concept and School Adjustment," Personnel and Guidance Journal, XLVI (January, 1968), 478-481.

Williamson, E. G., "Youth's Dilemma to Be or to Become," Personnel and Guidance Journal, XLVI (October, 1967), 173-177.

Woodring, Paul, "Ability Grouping, Segregation, and the Intellectual Elite," School and Society, LXXXVII (April, 1959), 164-165.

APPROVAL SHEET

The dissertation submitted by Sister Madeleine Sophie Weber, I.H.M. has been read and approved by members of the Department of Education.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Jan. 7, 1970
_____
Date

_____
Signature of Advisor