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A STUDY OF DIFFERENTIAL CHARACTERISTICS  
OF FRESHMEN MUSIC STUDENTS IN SELECTED  
TWO-YEAR AND FOUR-YEAR COLLEGES IN  
VIRGINIA.

The University of North Carolina at Greensboro,  
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A STUDY OF DIFFERENTIAL CHARACTERISTICS OF FRESHMEN  
MUSIC STUDENTS IN SELECTED  
TWO-YEAR AND FOUR-YEAR  
COLLEGES IN VIRGINIA

by

Robert G. Banks

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the Faculty of the Graduate School at  
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Approved by

  
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APPROVAL SHEET

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The purpose of this study was to determine whether differences existed between entering freshmen two-year and four-year college music students by group and by sex in personality characteristics, value structures, and musical aptitude.

Three tests were given in this study--the Omnibus Personality Inventory (OPI) was given to determine personality characteristics; the Study of Values (SOV) was given to determine value structures; and the Musical Aptitude Profile (MAP) was given to determine musical aptitude.

The two-year college sample consisted of students entering music programs at Virginia Western Community College and Tidewater Community College in Virginia. The four-year college sample consisted of students entering music programs at Madison College in Virginia. Both two-year colleges and the four-year college are state supported public institutions. Testing was done in freshman music theory classes.

For each of the three tests, univariate analysis of variance was performed on each subtest to assess the differences between two-year and four-year college students and between males and females. A multivariate analysis of variance was used to examine differences over all subtests for each of the three main tests. Means were computed for all variables and comparisons were made with normative data. Intercorrelation coefficients were computed between all subtests within each of the three main tests.

The six null hypotheses tested in the study were the following:  
(1) there are no significant differences between two-year and four-year

college freshmen music students in personality characteristics; (2) there are no significant differences between two-year and four-year college freshmen music students in values; (3) there are no significant differences between two-year and four-year college freshmen music students in musical aptitude; (4) there are no significant differences between the males and females of the sample groups in personality characteristics; (5) there are no significant differences between the males and females of the sample groups in values; and (6) there are no significant differences between the males and females of the sample groups in musical aptitude. The six null hypotheses were tested at the .05 level of confidence. The MANOVA test of over all differences for each test revealed a significant difference in personality characteristics by sex, a significant difference in values by sex, and a significant difference in musical aptitude by group. The remaining three null hypotheses failed to be rejected.

The strength of the difference between groups in the "Rhythm Imagery-Meter" subtest of the MAP apparently accounted for the difference in musical aptitude by year. It was also found that a difference existed between males and females on the "Tonal Imagery-Harmony" subtest of the MAP.

It was also revealed that the four-year college males scored higher on the "Intellectual Disposition Category," "Thinking Introversion," "Theoretical Orientation," "Estheticism," "Complexity," "Autonomy," "Religious Orientation," and "Response Bias" from the OPI, indicating that the four-year college males may possess greater interest in learning for its intrinsic value; they are more independent, more liberal and less committed to fundamental beliefs; and they possess a higher level of sensitivity for artistic stimulation. It was revealed that the two-year

group scored higher on the "Practical Outlook" scale which tends to indicate that they work better with concrete facts than with abstract ideas and that they prefer short factual questions to those which require organization. The two-year group, in scoring lower on the "Autonomy," "Religious Orientation," and "Estheticism" scales, is consistent with previous studies for general students that show that two-year college students are more authoritarian, less independent, and more conservative than four-year college students.

Although the results of the MANOVA test revealed a significant difference by sex on the SOV, both males and females ranked the "Aesthetic" first in values. The females demonstrated a feminine profile by ranking the "Aesthetic," "Social," and "Religious" highest. The males demonstrated a mixed masculine profile by ranking the "Aesthetic," "Theoretical," and "Economic" highest.

## ACKNOWLEDGMENTS

Many people have given generously of their time in assisting me in the preparation of this document. My sincerest appreciation goes to the freshmen music students at Madison College, Tidewater Community College, and Virginia Western Community College for their cooperation in serving as subjects for this study. The assistance provided by the instructors, Donald Smith of Tidewater Community College, and George West of Madison College, was invaluable. The statistical advice provided by Dr. William Powers of the University of North Carolina at Greensboro was given generously and without due regard for his own personal time. Each session was a valuable learning experience. To the members of my committee, my sincerest appreciation for the great number of hours spent in perusing this document. Lastly, I would like to thank my adviser and good friend, Dr. Walter Wehner, for his encouragement and guidance.



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## CHAPTER I

## INTRODUCTION

The rapid growth in public two-year college enrollments over the past two decades has resulted in an increased awareness of a need for scientific study concerning this segment of higher education. Transfer and terminal two-year college programs have attracted individuals of all ages and abilities, creating special problems for those who may wish to complete their education in a four-year institution. Although comparative studies have been conducted between general students in two-year and four-year colleges,<sup>1</sup> research directed toward students enrolled in two-year college music transfer programs has been relatively sparse. A lack of research on junior college music programs may be due in part to non-research attitudes of music educators involved and to the relative recency of two-year music transfer programs. Since students enrolled in music within any one institution display specific cognitive, valuational and aptitudinal characteristics which may be somewhat different from the general student, there appears to be a need for research directed toward differential characteristics of entering two-year and four-year college music freshmen to assess the similarities and differences as a basis for curriculum planning. Although diagnostic tests

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<sup>1</sup>Harry D. Tillery, "Differential Characteristics of Entering Freshmen at the University of California and Their Peers at California Junior Colleges." Ph.D. dissertation, University of California (Berkeley), 1964.

have been a valuable tool in assessing individual student differences for some time, the use of diagnostic tests in assessing differences between two-year and four-year college music students as groups might provide data which may be relevant for curriculum planning purposes.

According to the U.S. Bureau of Census in 1971, two-year colleges represented forty-two per cent of all students enrolled in the first two years of college.<sup>2</sup> It was also reported that students who select a two-year college exhibit different social, economic and demographic characteristics from those students who enroll in a four-year college. The median age for those attending two-year colleges is slightly greater than those attending a four-year college.<sup>3</sup> Considering the sizeable proportion of students attending two-year colleges, it seems that it is not only appropriate but necessary to conduct a study of two-year college music students to develop a profile which may be compared with that of four-year college students.

It may be expected that two-year college music students tend to display characteristics which are different in varying degrees from their four-year counterparts simply because of differences in admission procedures: two-year colleges admit students on a non-selective basis and four-year colleges tend to admit students on a

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<sup>2</sup>U.S. Bureau of Census, Current Population Reports, Series P-20, No. 236, "Undergraduate Enrollments in Two-Year and Four-Year Colleges: October 1971," U.S. Government Printing Office, Washington, D.C., 1972.

<sup>3</sup>In two-year colleges, it was found that 37 per cent of the males and 25 per cent of the females were between 22 to 34 years of age which is considered to be beyond primary ages of college attendance.

selective basis. Previous research by Tillery<sup>4</sup> has indicated that junior college general students are more conventional, less independent and more authoritarian than four-year college students. In terms of available data, it may be expected that two-year college general students cover the same intellectual spectrum as the four-year college students although in different proportions.<sup>5</sup> Although reasons for enrolling in two-year college music programs may be attributed to economic factors, career decisions, family ties or academic backgrounds, more fundamental reasons may be based on personality factors, value structures and musical aptitudes.

Previous studies have resulted in the development of normative musical aptitude data for non-music majors and music majors in four-year institutions.<sup>6</sup> The thought of contributing to the small amount of existing data on junior college music freshmen has prompted this writer to follow Cady's recommendation that music educators should consider building on existing research rather than always attempting original research.<sup>7</sup> It appears that his recommendation was made to prevent existing research from being neglected as a source for continued study. Since most of the research to date has involved junior

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<sup>4</sup>Tillery, "Differential Characteristics of Entering Freshmen."

<sup>5</sup>Leonard V. Koos, The Community College Student (Gainesville, Fla.: University of Florida Press, 1970).

<sup>6</sup>William T. Young, "Musical Aptitude Profile Norms for Use with College and University Nonmusic Majors," Journal of Research in Music Education, XX (Fall, 1972), p. 385.

<sup>7</sup>Henry L. Cady, "Tests and Measures in Higher Education: School Music Teachers," Journal of Research in Music Education, XV, No. 1 (1967).

college general students, it is believed that an investigation of differential characteristics of freshmen two-year and four-year college music students may not only reveal implications for curriculum design in the two-year college but also provide a basis for more effective articulation between the two institutions.

The purpose of this study was to determine whether differences existed between freshmen two-year and four-year college music students in personality characteristics, value structures and musical aptitude.

#### Developmental Stages of Junior College

Historically, the two-year junior college appears to have gone through three phases or stages to arrive at today's community college.<sup>8</sup> Phase I, from 1902 to approximately 1920, may be characterized as an abbreviated four-year university in design and structure. It appears that the same traditional-type curriculum which characterized the four-year institution was offered. Phase II, which began after World War I and continued to the beginning of World War II, was a period when the junior college became dual-tracked with the introduction of vocational-technical-occupational programs. It was believed by the authorities that single-track academic programs did not meet the needs of all students. Phase III, from 1941 to the present, is characterized by the junior college evolving into a community college as a multi-track institution. With terminal and transfer programs clearly established, the two-year community college has as its goal the meeting of post-high

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<sup>8</sup>Music Educators' National Conference. Music in the Junior College (Washington, D.C.: Music Educators' National Conference, 1973), p. 1.



school needs of today. While it is not the intent of this study to identify the needs of students today, the writer is aware of the multiplicity of needs of students. It is believed that an investigation of the needs would involve another study in itself. Due to various factors of size, needs and economic conditions, community college music programs throughout the United States may exhibit characteristics of all three phases, with some having traditional transfer programs and others displaying innovative vocational programs.<sup>9</sup>

Distinguishing characteristics of two-year and four-year colleges which are relevant to this study are shown in Table 1.

TABLE 1  
DISTINGUISHING CHARACTERISTICS OF  
TWO-YEAR AND FOUR-YEAR  
PUBLIC COLLEGES

<u>Two-Year College:</u>	<u>Four-Year College:</u>
1. Two-year associate terminal or transfer degrees.	1. Four-year baccalaureate degrees.
2. Non-selective admissions.	2. Selective admissions.
3. Primarily a non-resident school.	3. Primarily a resident school.
4. Student body composed of varied ages	4. Student body composed of post-high school ages.
5. Students from limited geographical area.	5. Students from wide geographical area.
6. Special emphasis on counseling.	6. Less emphasis on counseling.

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<sup>9</sup>National Association of Schools' of Music. Proceedings of the Fiftieth Anniversary Meeting (Houston, Texas, 1974), p. 168.

### Study Goals

Although it is recognized that both private and public two-year and four-year colleges have music programs, this study has been limited to public two-year and four-year institutions which have music programs. It appears that governmental regulatory agencies, through the promotion of equal opportunities for students, have broadened the composition of private four-year college student bodies to include students with more varied socioeconomic backgrounds. Although scholarship programs based on need have provided equal opportunities for many students in private four-year colleges, it is the writer's opinion that a broader selection of students representing various socioeconomic backgrounds will be achieved by limiting a study to public institutions. The terms, "junior college" and "community college," have been used interchangeably to indicate a two-year public institution of higher learning.

The first goal of this study was to examine the intellectual orientations of two-year and four-year college music students through the Omnibus Personality Inventory (OPI).<sup>10</sup> Authorities in personality development tend to agree that an individual's behaviors reflect immediate and past influences of the home and family. In addition, it is believed that the course of an individual's development may be related to significant experiences or lack of significant experiences in the home. Conceivably, important determinants in an individual's development may be a mixture of genetic, maturational and environmental factors. It is also believed by personality theorists that human beings have the

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<sup>10</sup>Paul Heist and George Yonge, Omnibus Personality Inventory, Form F (New York: The Psychological Corporation, 1968).

potential capabilities of change in a social-learning environment, with the "amount and type of change contingent upon the effects of the past and the forces of the present."<sup>11</sup> An inventory which provided a differentiating description of student personalities seemed to be essential in order to determine value structures. The development of measures for intellectual and scholarly concerns, both considered as correlates of academic activity, was achieved in the OPI through inventories "on ideas and reflective thought, in use of abstractions and in the area of esthetic appreciation."<sup>12</sup>

The second goal of this study was to examine the value structures of two-year and four-year college music students through the use of the Study of Values (SOV).<sup>13</sup> Values, like personality factors, result from the interaction of an individual with his environment. It was deemed necessary to measure the values that an individual possesses when he enters college to determine value structures, since authorities tend to agree that value structures may exert a strong influence on an individual's orientation toward learning.<sup>14</sup> Although random observations by the writer indicate that community college students may possess value structures which differ somewhat from four-year college students, these

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<sup>11</sup>Heist, Omnibus Personality Inventory Manual, p. 2.

<sup>12</sup>Ibid.

<sup>13</sup>Gordon W. Allport, Philip E. Vernon, and Gardner Lindzey, Study of Values (Boston: Houghton Mifflin, 1970).

<sup>14</sup>North Carolina Department of Administration, Supervision and Higher Education, Student Development: In Concept and Practice in the Community College (Boone, North Carolina: Appalachian State University, 1972), p. 8.

observations require substantiation.

The third goal of this study was to examine the musical aptitudes of two-year and four-year college music students through the use of the Musical Aptitude Profile (MAP).<sup>15</sup> Musical aptitude appears to be an imponderable dimension since authorities cannot agree on its structure. In view of the main purpose of this study, Lehman's statement that "aptitude tests are designed to measure innate capacity for musical learning even though no such learning may actually have taken place"<sup>16</sup> appears to have relevance. Aptitude or capability was chosen for examination over achievement since a measure of musical potential rather than achievement would decrease the effects of socioeconomic background. Although achievement does affect the measurement of aptitude, it may be argued that aptitude is independent of achievement.<sup>17</sup> It has been observed by the writer that a sizeable proportion of community college music students may possess musical aptitude but have achieved very little musically.

Since the two-year college includes both vocational and academic programs, it offers a different learning environment from that of the four-year institution. Are the personality characteristics, values and musical aptitudes of the students choosing the two-year college

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<sup>15</sup>Edwin Gordon, Musical Aptitude Profile (Boston: Houghton Mifflin, 1965).

<sup>16</sup>Paul R. Lehman, Tests and Measurements in Music (Englewood Cliffs, New Jersey: Prentice-Hall, 1968), p. 8.

<sup>17</sup>Robert W. Lundin, An Objective Psychology of Music (New York: Ronald Press, 1967).

different from those choosing a four-year college? It is expected that this study will provide data on differential characteristics for two-year and four-year freshmen college music students which may not be definitive but may provide a basis for future research.

## CHAPTER II

## REVIEW OF THE LITERATURE

Literature Pertaining to Personality

Authorities in the study of personality development believe that opinions and behaviors are affected by personality and environment.<sup>1</sup> Supportive evidence that both the individual and environment require an interaction for definition or description may be found in constructs for personality scales. Yonge has stated that personality scales are a definition of "interaction between the student and environmental characteristics."<sup>2</sup> The social implications of the environment have been expressed by Morris when he said that "an individual's personality is influenced by biological characteristics of the individual in question and by the type of personality favored by the social group to which he belongs."<sup>3</sup>

Since this study involved entering music students in junior and senior colleges, it was apparent that students had begun to establish a vocational choice. It has been hypothesized by Elton that personality factors play a more important part in the choice of a vocation than

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<sup>1</sup>Calvin S. Hall and Gardner Lindzey, Theories of Personality (New York: John Wiley, 1970), p. 210.

<sup>2</sup>George D. Yonge, "Personality Correlates of the College and University Environment Scales," Educational and Psychological Measurement, XXVIII (Spring, 1968), p. 118.

<sup>3</sup>Charles Morris, Paths of Life (New York: George Braziller, 1956), p. 28.

ability, which influences the choice of career role.<sup>4</sup> For this study of freshmen music students, music was considered the vocational choice. At this point in an individual's life, the vocational choice based on personality may be more defined than the career role which may be affected by future acquired abilities.

Although two-year colleges attract students of various abilities, it may be expected that they attract a larger body of musically disadvantaged students than the four-year colleges because of non-selective admission procedures. Gleazer stated:

Many community colleges have accepted students who were not able for various reasons to meet the admission requirements of the university and have conserved their offerings to society by equipping them either to be productive members of society immediately after two years of work or to further qualify themselves by transferring to the university as juniors.<sup>5</sup>

In addition, Bushnell has stated that public and private two-year colleges do not serve the same constituencies as four-year colleges and universities. He observed that backgrounds and characteristics which shaped the interests, career goals and values of community and junior college students are diverse and that heavy emphasis is placed on the disadvantaged, the minority and home-based students.<sup>6</sup>

The National Association of Schools of Music (NASM) in its

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<sup>4</sup>Charles F. Elton, "Male Career Role and Vocational Choice: Their Prediction with Personality and Aptitude Variables," Journal of Counseling Psychology, XIV, 1967.

<sup>5</sup>Edmund J. Gleazer, Jr., A New Social Invention: The Community College, What It Is (Washington, D.C.: American Association of Junior Colleges, 1962), p. 6.

<sup>6</sup>D. S. Bushnell, Organizing for Change: New Priorities for Community Colleges (New York: McGraw-Hill, 1973).

approach to setting standards for junior college music programs has agreed that "standards in music for junior colleges offering a professional transfer program should be the same as those established by NASM for the first two years in senior colleges."<sup>7</sup> If this statement is accepted, would the non-selective admission procedures of the public two-year colleges create situations which may prevent the achievement of the stated goals of NASM? In a study by Tucker, it was concluded that student characteristics and environments should be appraised so that students with varying potentialities would not be disadvantaged.<sup>8</sup>

The Music Educators' National Conference (MENC) in its publication, Music in the Junior College, stated:

If the music-transfer program is to survive and be effective, junior college curricula must be dual- or even tri-tracked. One body of courses cannot meet the needs of all students, and result in dilution of courses and the subsequent inadequate preparation of the music-transfer student. The general education requirement, plus the absence of appropriate music courses for both the specialized and general student, present two very serious problems for those attempting to establish or maintain successful music-transfer programs in junior colleges.<sup>9</sup>

Do the two-year college students perceive their environment to be more or less intellectual than the four-year students? A study by Fenske pointed out that junior college students were seen to have taken part

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<sup>7</sup>National Association of Schools of Music, Bulletin, (1967), p. 91.

<sup>8</sup>Sylvia Boltz Tucker, "College and University Potential of Selected Junior College Students," Ed.D. dissertation, University of California at Los Angeles, 1964.

<sup>9</sup>Music Educators' National Conference, Music in the Junior College, p. 30.



in cultural activities to a lesser extent and also perceived their environment as less intellectual and lacking in pressure to make good grades compared to senior college students.<sup>10</sup>

Inventories which purport to measure personality characteristics not only provide for examination of characteristics singularly but also in clusters. It was reported in one study that "all elements of personality are interrelated in such a way as to affect his [student's] reactions to classroom experience."<sup>11</sup> When developmental learning theories are considered, it seems likely that an individual must be prepared for intrinsic and intensive intellectual involvement when he reaches the higher education level of learning.

Gardner Murphy's statement seems to support this point of view when he described personality as "the interdependence of a large number of qualitatively distinct attributes in some sort of a coherent whole. It is the interlocking, the structural or architectural totality, rather than the sheer generality, of one or more traits . . ."<sup>12</sup> The authors of the OPI indicate that each behavioral domain measured is seen as an aspect of the whole with continuous interaction taking

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<sup>10</sup>Robert H. Fenske and Craig S. Scott, A Comparative Study of Recent Trends and Characteristics of Students Entering American Junior Colleges, 1968-1972 (Iowa City, Iowa: The American College Testing Program, 1972).

<sup>11</sup>North Carolina Department of Administration, Student Development, p. 8.

<sup>12</sup>George S. Klein, Harriet L. Barr, and David L. Wolitzky, "Personality," in Annual Review of Psychology, ed. by Paul R. Farnsworth, XVIII (1967), pp. 467-560.

place with others.<sup>13</sup>

Brown, in a study to determine whether there was a relationship between intellectual attitudes or breadth of intellectual interest and academic achievement among college freshmen, found that the academically minded student places a premium on good grade point average (GPA) and fulfillment of course requirements while the intellectually oriented student strives to broaden his understanding and sharpen his ability to think.<sup>14</sup>

Implications for curriculum planning may be found in the personalities of entering college music students. In a study by Duling, it was revealed that the intellectual enjoyment dimensions of personality should be considered in planning music curricula and in guiding students into appropriate music classes.<sup>15</sup> Personality characteristics appear to be central to the approach that students adopt toward learning in college.

#### Literature Pertaining to Values

Authorities appear to differ on a definition of values and how they are achieved. One writer has stated that value, as a term, is employed in different ways that results in confusion.<sup>16</sup>

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<sup>13</sup>Heist and Yonge, Omnibus Personality Inventory Manual, p. 25.

<sup>14</sup>Robert D. Brown, "An Investigation of the Relationship between the Intellectual and the Academic Aspects of College Life," Journal of Educational Research, LXI (July-August, 1968).

<sup>15</sup>John Duling, "A Comparison of Certain Selected Personality and Performance Dimensions of Music Students in Three San Francisco High Schools," Ed.D. dissertation, University of California at Berkeley, 1966.

<sup>16</sup>Morris, Paths of Life, p. 3.

From the literature reviewed, it appears that a description of values is dependent upon the experiential background of the individual. Using Santayanian terminology, values as a class of indefinable affective qualities such as pleasant, enticing, fascinating, awesome or revolting, are in some way connected with feelings.<sup>17</sup> Raths believes that feelings, attitudes, and interests are value indicators and could indicate the presence of a value.<sup>18</sup> Tiedeman refines the description by stating that values are "related to interests, but differ in that they are the qualities sought rather than the activities or objects which embody them; they are thus more fundamental."<sup>19</sup> A variant on the description of a value was given by Skinner, a behaviorist and an exponent of operant conditioning, when he stated that "what is maximized or minimized, or what is ultimately good or bad, are things, not feelings, and men work to achieve them or to avoid them not because of the way they feel but because they are positive or negative reinforcers."<sup>20</sup>

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<sup>17</sup>Ralph B. Perry, Realms of Value (Cambridge, Mass.: Harvard University Press, 1954), p. 10.

<sup>18</sup>Louis E. Raths, Merrill Harmin, and Sidney B. Simon, Values and Teaching (Columbus, Ohio: Charles E. Merrill, 1966).

<sup>19</sup>David Tiedeman, "Review of Study of Values," in Seventh Mental Measurement Yearbook, ed. by Oscar K. Buros (Highland Park, N.J.: Gryphon Press, 1972), p. 1479.

<sup>20</sup>B. F. Skinner, Beyond Freedom and Dignity, Bantam Books (New York: Alfred A. Knopf, 1971), p. 102.

Brewster,<sup>21</sup> Kluckhohn,<sup>22</sup> and Perry<sup>23</sup> generally agree that values are highly orienting preferences, distinctive of an individual, that are usually given a relatively central and hierarchially superior status in the organization of personality and influence an individual's modes, means and ends of action. It appears to make little difference whether values are viewed from a behavioristic or humanistic standpoint, they apparently become a strong motivating force in the approach to cognition. In view of the student's experiential background, his interests in, attitudes toward and preferences for one quality or objective over another would seem to be a major concern in a study of values. It may be concluded that a student's values will tend to be reflected in his approach to learning.

It has been stated by Wheelis that the values which students bring with them into the classroom tend to indicate that values are a product of sustained and purposeful activity rather than casual and random activity.<sup>24</sup> Corey stated that a system of values is an "integrated structure of beliefs, attitudes, interests within the personality which motivates or restricts behavior and which enables the

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<sup>21</sup>Smith M. Brewster, Social Psychology and Human Values (Chicago: Aldine Publishing Co., 1969), p. 101.

<sup>22</sup>T. Parsons and E. A. Shils, ed., Toward a General Theory of Action (Cambridge, Mass.: Harvard University Press, 1951), p. 395.

<sup>23</sup>Ralph B. Perry, Realms of Value, p. 3.

<sup>24</sup>Allen Wheelis, The Quest for Identity (New York: W. W. Norton, 1958), p. 177.

individual to maintain a balance between himself and his social world."<sup>25</sup> A difference was perceived among attitudes, values and beliefs by Kerlinger when he stated:

Attitudes and values are beliefs systems. Beliefs are enduring cognitions about referents (cognitive objects, like neighborhood schools, children's interests, school busing), end-states or goals of life, and means of attaining end-states or goals. Beliefs reflect the value and attitude systems to which they are related. An attitude is an enduring emotional, motivational, perceptual, and cognitive organization of beliefs about referents, or sets of referents, that predispose individuals to behave positively or negatively toward the referents. A value is an organization of beliefs about abstract referents and principles, behavioral norms, or standards, and end-states of life. Values put judgments of goodness or badness on the referents, the principles, and the end-states of life, and imply moral compulsion and preferences for norms and standards of behaving.<sup>26</sup>

That individuals show a preference for the desirable was stressed by Rogers when he used the term, "preferential behaviors." He viewed values as "the tendency of any living being to show preference, in their actions, for one kind of object or objective rather than another."<sup>27</sup> The significance of this statement appears to be in the words, "to show preference, in their actions." Herein lies the difficulty in measuring values through an inventory. If the values of an individual are not

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<sup>25</sup>Fay L. Corey, Values of Future Teachers (New York: Columbia University Press, 1955), p. 5.

<sup>26</sup>Fred N. Kerlinger, The Study and Measurement of Values and Attitudes. Paper presented at the American Educational Research Association, Chicago, Illinois, April 1972, p. 2.

<sup>27</sup>Carl Rogers, Freedom to Learn (Columbus, Ohio: Charles E. Merrill, 1969), p. 241.

sufficiently strong, it may be impossible to differentiate between what is desired and what is desirable. In view of Rogers' statement that "the locus of evaluation is established firmly within the person,"<sup>28</sup> it would seem to follow that it is the student's own experience which provides the value information or feedback.

The consequential nature of the cognitive and valuational processes may be intertwined to the extent that each depends upon the other for definition. Maslow has said that "the clear perception of values is in part a consequence of the clear perception of facts or, perhaps, they may even be the same thing."<sup>29</sup> Since the completeness of man's knowledge of facts tends to help in the development of a value system and results in the arrangement of values within a hierarchical structure, Bruner's conception of cognitive processes, the means whereby man achieves, retains, and transforms information,<sup>30</sup> seems to be germane to a study of intellectual orientations and values.

#### Literature Pertaining to Musical Aptitude

Authorities tend to agree that students entering a college music program should have the capacity for musical performance and a sensitivity toward and appreciation of music.<sup>31</sup> Experience has revealed that some two-year college music students may have the "biological capacity" for

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<sup>28</sup>Ibid., p. 249.

<sup>29</sup>Abraham H. Maslow, The Farther Reaches of Human Nature, Viking Compass Edition (New York: Viking Press, 1972), p. 122.

<sup>30</sup>Jerome S. Bruner, Jacqueline J. Goodnow, and George A. Austin, A Study of Thinking (New York: John Wiley, 1967), p. 1.

<sup>31</sup>Luidin, An Objective Psychology of Music, p. 204.

music study but have very little ability or few acquired skills to discriminate different pitches and intervals, to harmonize melodies, or to perform on an instrument. It appears that a lack of acquired musical skills need not necessarily be a deterrent for admission to a junior college music program. Because of the non-selective admission policy, prospective students who enter a community college music program may not possess adequate musical behaviors suitable for admission to a four-year college.

Although musical aptitude may be considered simplistic in nature, a review of the literature reveals that the construction of a musical aptitude test is difficult. The problem appears to be in identifying the elements of musical aptitude. Rainbow provided a comprehensive definition of musical aptitude when he stated that it

. . . refers to potential talent in music. As with other forms of learning, high aptitude does not necessarily mean high achievement will result, but it does indicate that under favorable conditions, high achievement is possible. A person who possesses a high level of aptitude for music will have an exceptional awareness for musical sound. This awareness, or talent, manifests itself in a manner in which a student is readily able to grasp, see relations in, make generalizations from, and relate and organize ideas presented through the media of music.<sup>32</sup>

In summarizing his investigation, the author states:

A majority of the musical aptitude tests currently available to music teachers have subtests which purport to measure pitch discrimination, rhythmic sensitivity, and memory for music or tonal expressions. The results of this investigation support the hypothesis of the musical aptitude test

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<sup>32</sup>Edward L. Rainbow, "A Pilot Study to Investigate the Constructs of Musical Aptitude," Journal of Research in Music Education, XIII (1965), p. 4.

constructors that these variables are facets of musical aptitude. However, the results of this investigation also indicate the extra-musical variables not generally evaluated may also be relevant to the determination of levels of musical aptitude. These variables are interest in music, home enrichment, academic intelligence, socio-economic background, musical achievement, and musical training.<sup>33</sup>

Although the measurement of musical aptitude may be isolated into the variables of pitch discrimination, rhythmic sensitivity and memory for music or tonal expressions, it appears that musical aptitude, in the complete sense, results from the interaction of musical and extra-musical variables.

Various measures of musical aptitude have been constructed to identify what authors consider to be components of musical talent since Seashore introduced the Measures of Musical Talents in 1919. In general, musical aptitude tests may be categorized into two groups--those tests that measure the elements of music in a non-contextual musical setting and those tests that measure the elements of music in a contextual setting. The constructs of Gordon's MAP are based upon the identification of rhythm and pitch in a contextual setting.

Although musical aptitude test scores have been used with public school students on numerous occasions, one study revealed that the MAP was reasonably reliable for use with college and university freshmen music students.<sup>34</sup> The raison d'être of the aptitude test with college

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<sup>33</sup>Ibid., p. 13.

<sup>34</sup>Robert E. Lee, "An Investigation of the Use of the Musical Aptitude Profile with College and University Freshman Music Students," Journal of Research in Music Education, XV (Winter, 1967).



freshmen is that it can provide an insight into the potential of college music freshmen when used as a diagnostic test. Although it is best used as a means of identifying strengths and weaknesses of music students individually, the collective use of musical aptitude profiles may be used for group comparisons. Gordon states that the "MAP was designed to minimize musical achievement so that the most basic factors of musical aptitude--musical expression, aural perception and kinesthetic musical feeling--may be adequately assessed."<sup>35</sup>

As a rationale for the MAP, Gordon states that the "Tonal Imagery-Melody" goes "beyond isolated pitch discrimination, which is merely a matter of acoustical perception, because the test also measures sensitivity to melodic contour, which is more pertinent and basic to music itself."<sup>36</sup> The perception of "Tonal Imagery-Harmony" involves listening to the lower of two parts to determine whether that part has been changed from its original version. Although rhythm has often been described as a dimension of musical aptitude independent of melody, Gordon believes that melody and rhythm are, in reality, inseparable. In effect, the "Rhythm Imagery" tests "measure the extent to which the student responds to various meters and tempi in melodic context rather than his ability to compare the lengths of isolated notes."<sup>37</sup>

The "Musical Sensitivity" test requires the individual to decide

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<sup>35</sup>Gordon, Manual for Musical Aptitude Profile, p. 1.

<sup>36</sup>Ibid., p. 8.

<sup>37</sup>Ibid., p. 10.

which of two performances makes better musical sense. Gordon's rationale for this statement is that "in spite of the fact that a musician may enjoy relatively superior talent in tonal and rhythmic aspects of music, his musical success cannot go beyond his ability to interpret and express these factors in a musically sensitive manner."<sup>38</sup> Although the measurement of musical creativity lies outside the realm of standardized listening tests, the "phrasing" and "style" subtests are designed to assess interpretative ability and the "balance" subtest is designed as an indirect measure of melodic and rhythmic creative ability. Since all excerpts of music are original, bias in the form of earlier listening is reduced.

In summary, musical behaviors result from the interaction of the human organism with musical stimuli. Musical aptitude tends to be reflected through a perceptual awareness of tonal and rhythmic relationships, and a sensitivity to the organization of combined musical stimuli. It is also believed that musical aptitude tends to be affected by extra-musical variables, such as interest in music, home enrichment, academic intelligence, socio-economic background and musical training.

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<sup>38</sup>Ibid., p. 11.

## CHAPTER III

### PROCEDURES

#### Purpose of the Investigation

The purpose of this study was to determine whether differences existed between freshmen two-year and four-year college music students by group and by sex in personality characteristics, value structures and musical aptitude. Three tests were given in this investigation. The Omnibus Personality Inventory (OPI) was given to determine personality characteristics; the Study of Values (SOV) was given to determine value structures; and the Musical Aptitude Profile (MAP) was given to determine musical aptitude.

Six null hypotheses were tested in this study. (1) There are no significant differences between two-year and four-year college freshmen music students in personality characteristics. (2) There are no significant differences between two-year and four-year college freshmen music students in value structures. (3) There are no significant differences between two-year and four-year college freshmen music students in musical aptitude. (4) There are no significant differences between the males and females of the sample groups in personality characteristics. (5) There are no significant differences between the males and females of the sample groups in value structures. (6) There are no significant differences between the males and females of the sample groups in musical aptitude.

### Selection of Sample Groups

For this study, the two-year college sample consisted of students entering music programs at Virginia Western Community College and Tidewater Community College (Portsmouth Campus) in Virginia since both schools offer music transfer programs. The four-year college sample included students entering music at Madison College (Harrisonburg) in Virginia. Both two-year colleges and the four-year college are state-supported public institutions. Since music theory is a required course for most music freshmen, students in music theory classes were given the OPI, MAP, and SOV tests.

In general, the two-year colleges in Virginia attract students within a fifty mile radius of each respective school, whereas the four-year college has an eighty to twenty per cent ratio of within state to out-of-state students. Virginia Western Community College is located in the southwestern part of Virginia, which is mostly a rural area, while Tidewater Community College is located in the eastern shore area of Virginia, which is more densely populated. In combination, the two community colleges may be viewed as having a demographic profile similar to the four-year college since the latter attracts students from both rural and metropolitan areas. Also, it has been noted that approximately ten per cent of the music students from both community colleges have transferred to the senior college to complete their four-year baccalaureate degree in music.

### Tests Used in Study

#### Test for Personality: OPI

The assessment of personality factors of entering two-year and four-year music students was introduced to develop a personality profile for each group. Through the fourteen variables included in the OPI, personality characteristics that appear to be relevant to a student's success or adjustment in college were measured. (For a more detailed description of the OPI, see Appendix A.)

The OPI, composed of 385 self-referent items, required true or false answers for completion. From the various inventories reviewed, the OPI was chosen to obtain data on two-year and four-year music freshmen because of the large number of variables measured and its reported reliability. Although it may be considered incorrect to refer to the reliability of a scale or inventory, three different approaches have been used to arrive at an estimation of the reliability for the OPI. The reliability coefficient using the Kuder-Richardson Formula 21 (KR 21) ranges from .67 to .89. The test-retest method with a time interval of four weeks produced a great majority of reliability coefficients above .85 for the entire inventory, while the test-retest method produced a reliability coefficient of .88 on the IDC cluster.

The first six scales, the T0, TI, Es, CO, Au, and R0 in combination provide an assessment of intellectual disposition. Scores on the SE, IE, PI, and A1, a social-emotional adjustment cluster of scores, indicate degrees of social relationships and self-acceptance. The SE, IE, and Am cluster reveals altruistic orientations. The Au and R0 scores reveal non-authoritarian freedom to learn or readiness for challenging

intellectual experiences. The RB indicates whether a student has made a valid presentation on the inventory or whether he has attempted to present a good picture of himself.

The fourteen variables included in the OPI are shown in Table 2.

TABLE 2  
VARIABLES IN OPI

	1. Thinking Introversion		
	2. Theoretical Orientation	primary	
	3. Estheticism	scales	
	4. Complexity		IDC
	5. Autonomy	secondary	
	6. Religious Orientation	scales	
Social-	7. Social Extroversion		
Emotional	8. Impulse Expression	altruistic	
Adjustment	9. Personal Integration	cluster	
Cluster	10. Anxiety Level	SE, IE	
	11. Altruism	and Am	
	12. Practical Outlook		
	13. Masculinity-Femininity		
	14. Response Bias		

#### Test for Values: SOV

The SOV, an instrument for measuring dominant interests in personality, assumes that an attitude, interest, or preference is an indicator of a value. Six dominant interests measured by the SOV include the theoretical, economic, aesthetic, social, political, and religious. The test which used a forced-preference format revealed emergent interests arranged hierarchially.

The authors of the SOV claim a reliability coefficient of .90 through a split-half test and a .89 reliability coefficient through test-retest procedures.

The characteristics for the six interests measured by the SOV are shown in Table 3.

TABLE 3  
 CHARACTERISTICS AND INTERESTS  
 MEASURED BY THE SOV

<u>Interest</u>	<u>Characterized by:</u>
1. Theoretical	cognitive attitude
2. Economic	practical outlook on life
3. Aesthetic	artistic attitude in life
4. Social	altruistic aspect of life
5. Political	power interest of individual
6. Religious	man's unity with universe

Test of Musical Aptitude: MAP

Although constructs for musical aptitude tests remain controversial, Gordon chose three categories which minimized the effects of achievement in music. The first two tests, "Tonal Imagery" and "Rhythm Imagery," required non-preferential choices, and "Musical Sensitivity" required a personal preference as to which musical selection sounded best to the individual. In the event that a student was unsure about an answer, he had the option of indicating this viewpoint by marking the "question mark" column.

A total of eleven scores may be achieved from this measuring instrument. The MAP has a split-half reliability coefficient of .90 for college freshmen.

The three main tests with subtest headings are shown in Table 4.

TABLE 4

## MAP TESTS AND SUBTESTS

Tonal Imagery (T)
I. Melody (T <sub>1</sub> )
II. Harmony (T <sub>2</sub> )
Rhythm Imagery (R)
I. Tempo (R <sub>1</sub> )
II. Meter (R <sub>2</sub> )
Musical Sensitivity (S)
I. Phrasing (S <sub>1</sub> )
II. Balance (S <sub>2</sub> )
III. Style (S <sub>3</sub> )

Administration of Tests

Since this study involved students in three colleges, it was necessary to seek the cooperation of the department heads. In all three instances, cooperation was granted readily. Testing time was arranged through the instructors of music theory classes. Since the MAP included three main tests on magnetic tape and required approximately two hours to administer, testing time was divided into three time frames covering three days. The OPI and the SOV were given to the students to complete outside of class after explanations were made. Students accepted the MAP without question since all instructors were interested in receiving feedback on the musical aptitude for their respective students. A few students reacted quite strongly against taking the OPI and SOV because they believed that it was an invasion of privacy. As a result, all responses for these two tests were coded to maintain anonymity. This procedure reduced much of the previous anxiety. Therefore, across test profiles by student were made impossible. Minor difficulties were encountered with students in returning the OPI and SOV.



Since there were more students enrolled in music theory classes at the four-year college than in the two-year colleges combined, responses from the four-year college sample were selected on an even-numbered basis to equal the number for the two-year college sample. Total observations included 96 for the OPI, 92 for the SOV and 112 for the MAP. However, after noting the omission of sex on some responses, it was found that the observations had been reduced to 42 for the two-year sample and 36 for the four-year sample for a total of 78 for each test.

All tests were hand-scored by the writer. Scores were then placed on IBM Fortran charts in preparation for keypunching. The data were then analyzed by computer.

#### Statistical Procedures

The design for this study provided for a statistical analysis of data resulting from the OPI, SOV and MAP. Since two of the three main tests, OPI and SOV, reported normative data in raw score form and since the subjects of this study were somewhat different from the types used in standardizing the tests, data in raw score form was used for all statistical analyses.

For each of the three tests, univariate analysis of variance was performed on each subtest to assess statistical differences between two-year and four-year college students and between males and females. In addition, the interaction between year and sex was examined for each subtest. A multivariate analysis of variance was used to examine significant differences over all subtests for each of the three main tests.

Means were computed for all variables in the study and comparisons with normative samples have been presented in tables. Intercorrelations were computed between all subtests within each of the three main tests. No attempt has been made to show causal relationships between students and their choice of junior or senior college nor to indicate predictive relationships regarding success in college.

## CHAPTER IV

## ANALYSIS AND INTERPRETATION OF THE DATA

Analysis of the data for this study was achieved through the use of Multivariate Analysis of Variance (MANOVA) in a Statistical Analysis System (SAS), Regression Program.<sup>1</sup> The six null hypotheses stated in Chapter II were tested at the .05 level of confidence. These were examined by using a multivariate analysis of variance on the combined scores for each test. Univariate analysis of variance was used to examine each variable of the three tests.

Table 5 shows the list of abbreviations used in the analysis of the data.

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<sup>1</sup>Anthony James Barr and James Howard Goodnight, Statistical Analysis System (SAS) Manual (Raleigh, N.C.: North Carolina State University, 1970).

TABLE 5

## ABBREVIATIONS USED IN ANALYSIS OF DATA

## I. Omnibus Personality Inventory (OPI)

TI	Thinking Introversion
TO	Theoretical Orientation
ES	Estheticism
CO	Complexity
AU	Autonomy
RO	Religious Orientation
SE	Social Extroversion
IE	Impulse Expression
PI	Personal Integration
AL	Anxiety Level
AM	Altruism
PO	Practical Outlook
MF	Masculinity-Femininity
RB	Response Bias
IDC	Intellectual Disposition Category

## II. Study of Values (SOV)

TH	Theoretical
EC	Economic
AE	Aesthetic
SO	Social
PO	Political
RE	Religious

## III. Musical Aptitude Profile (MAP)

T <sub>1</sub>	Tonal Imagery: Melody
T <sub>2</sub>	Tonal Imagery: Harmony
T	Tonal Imagery: Total
R <sub>1</sub>	Rhythm Imagery: Tempo
R <sub>2</sub>	Rhythm Imagery: Meter
R	Rhythm Imagery: Total
S <sub>1</sub>	Musical Sensitivity: Phrasing
S <sub>2</sub>	Musical Sensitivity: Balance
S <sub>3</sub>	Musical Sensitivity: Style
S	Musical Sensitivity: Total

TABLE 6  
ANALYSIS OF VARIANCE FOR OPI SCALES

Scale	Source	DF	Sum of Squares	Mean Square	F
IDC	Year	1	8.21	8.21	5.54*
	Sex	1	7.72	7.72	5.20*
	Year & Sex	1	8.53	8.53	5.75*
	Error	71	109.76	1.48	
TI	Year	1	99.18	99.18	2.33
	Sex	1	196.57	196.57	4.61*
	Year & Sex	1	96.38	96.38	2.26
	Error	74	3155.17	42.64	
TO	Year	1	33.24	33.24	1.57
	Sex	1	312.76	312.76	14.81*
	Year & Sex	1	97.69	97.69	4.62*
	Error	74	1563.02	21.12	
ES	Year	1	193.90	193.90	10.86*
	Sex	1	11.37	11.37	.64
	Year & Sex	1	.21	.21	.01
	Error	74	1321.70	17.86	
CO	Year	1	74.49	74.49	3.42
	Sex	1	241.51	241.51	11.10*
	Year & Sex	1	98.19	98.19	4.51
	Error	74	1610.64	21.76	
AU	Year	1	274.33	274.33	7.22*
	Sex	1	21.50	21.50	.57
	Year & Sex	1	231.95	231.95	6.11
	Error	74	2810.84	37.98	
RO	Year	1	16.29	16.29	.51
	Sex	1	279.22	279.22	8.68*
	Year & Sex	1	53.38	53.38	1.66
	Error	74	2379.48	32.16	
SE	Year	1	29.14	29.14	.66
	Sex	1	14.68	14.68	.33
	Year & Sex	1	3.58	3.58	.08
	Error	74	3236.96	43.74	
IE	Year	1	16.43	16.43	.19
	Sex	1	492.72	492.72	5.69*
	Year & Sex	1	8.25	8.25	.10
	Error	74	6405.90	86.57	

\*significant at .05 level

TABLE 6  
(cont'd)

Scale	Source	DF	Sum of Squares	Mean Squares	F
PI	Year	1	34.67	34.67	.26
	Sex	1	2.45	2.45	.02
	Year & Sex	1	24.68	24.68	.19
	Error	74	9774.15	132.08	
AL	Year	1	.03	.03	.002
	Sex	1	.00	.00	.00
	Year & Sex	1	45.78	45.78	2.28
	Error	74	1484.56	20.06	
AM	Year	1	81.59	81.59	2.86
	Sex	1	60.96	60.96	2.14
	Year & Sex	1	.03	.03	.001
	Error	74	2110.95	28.53	
PO	Year	1	123.47	123.47	6.13*
	Sex	1	82.47	82.47	4.10*
	Year & Sex	1	53.63	53.63	2.66
	Error	74	1489.87	20.13	
MF	Year	1	216.92	216.92	8.18*
	Sex	1	704.00	704.00	26.56*
	Year & Sex	1	15.84	15.84	.60
	Error	74	1961.70	26.51	
RB	Year	1	18.62	18.62	1.39
	Sex	1	62.49	62.49	4.66*
	Year & Sex	1	13.21	13.21	.98
	Error	74	992.51	13.41	

\*significant at .05 level

#### Analysis of Variance for OPI Scales

The analysis of variance for the variables included in the OPI may be found in Table 6. On the IDC scale, there was a significant difference in the year effect at the .05 level ( $F_{1,74} = 5.54$ ); there was a significant difference in the effects of sex at the .05 level ( $F_{1,74} = 5.20$ ); and there was a significant difference in the interaction of year with sex

TABLE 7  
MEAN SCORES FOR OPI SCALES\*

Scale	2 Year	4 Year	Male	Female	2 Year		4 Year		Normative	Normative
					Male	Female	Male	Female	4 Year	4 Year
									Male	Female
TI	21.74	24.00	24.31	21.53	22.32	21.10	27.69	21.91	24.5	26.0
TO	14.52	15.83	17.20	13.44	15.50	13.45	20.08	13.43	21.1	18.2
ES	12.64	15.80	13.40	14.67	12.23	13.10	15.38	16.04	10.6	13.7
CO	13.26	15.22	15.91	12.74	14.00	12.45	19.15	13.00	15.6	15.0
AU	21.57	25.33	23.54	23.11	20.59	22.65	28.54	23.52	24.0	22.9
RO	10.33	11.25	12.74	9.13	11.45	9.10	14.92	9.17	12.6	11.1
SE	21.19	22.42	21.17	22.23	20.95	21.45	21.54	22.91	22.6	24.1
IE	27.02	27.94	30.11	25.28	29.18	24.65	31.69	25.83	30.7	25.7
PI	29.98	28.64	29.28	29.42	29.32	30.70	29.23	28.30	30.3	29.4
AL	11.07	11.11	11.08	11.09	10.41	11.80	12.23	10.48	12.5	12.0
AM	18.98	21.03	18.77	20.86	18.14	19.90	19.85	21.70	19.2	22.4
PO	16.69	14.17	14.63	16.26	16.41	17.00	11.62	15.61	15.1	14.6
MF	25.93	22.58	27.97	21.46	28.45	23.15	27.15	20.00	33.1	23.9
RB	10.71	11.69	12.06	10.44	11.23	10.15	13.46	10.70	13.7	13.0
IDC	5.93	5.28	5.34	5.86	5.90	5.95	4.38	5.78	--	--

\*based on raw scores

at the .05 level ( $F_{1,74} = 5.75$ ). Since the IDC score (a cluster of scores) is inversely related to individual scale scores (on the IDC, a high score is one and a low score is eight), it is observed that the four-year college males scored highest. (See Figure 1.)

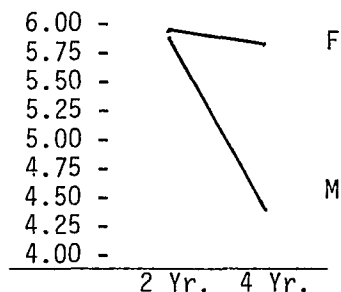


Figure 1. Interaction of Year with Sex on IDC.

On the TI scale, there were no significant differences in year and interaction of year with sex. However, the effect of sex was significant at the .05 level ( $F_{1,74} = 4.61$ ). In Table 7, it is observed that males scored higher than females.

On the TO scale, there was no significant difference in year. However, the effect of sex and interaction of year with sex were significant at the .05 level ( $F_{1,74} = 14.81$ ;  $F_{1,74} = 4.62$ ). In Table 7, it is observed that males scored higher than females. (See Figure 2.)

On the ES scale, there was a significant difference in the year effect ( $F_{1,74} = 10.86$ ). In Table 7, it is observed that four-year students scored higher than the two-year students. There were no significant differences in sex and interaction of year with sex.



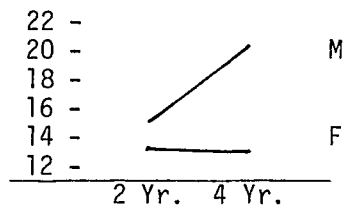


Figure 2. Interaction of Year with Sex on T0.

On the CO scale, there was no significant difference in year effect. However, there were significant differences in the effects of sex and interaction of year with sex ( $F_{1,74} = 11.10$ ;  $F_{1,74} = 4.51$ ). In Table 7, it is observed that the difference between males and females was substantially greater at the four-year school than at the two-year school. (See Figure 3.)

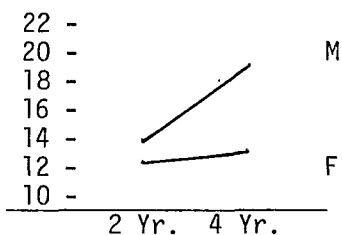


Figure 3. Interaction of Year with Sex on CO.

On the AU scale, there were significant differences in year and interaction of year with sex ( $F_{1,74} = 7.22$ ;  $F_{1,74} = 6.11$ ). From Table 7, it is observed that four-year males scored the highest. There was no significant difference in the effects of sex. (See Figure 4.)

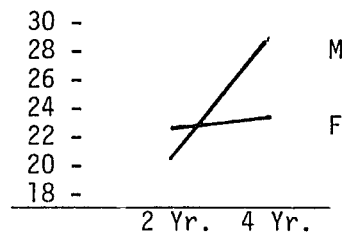


Figure 4. Interaction of Year with Sex on AU.

On the RO scale, there was a significant difference in the effects of sex ( $F_{1,74} = 8.68$ ). In Table 7, it is observed that males scored higher than females. There were no significant differences in year and interaction of year with sex.

No significant differences due to year, sex and year by sex were indicated on four scales. The four scales which had no significant differences were the SE, PI, AL and AM.

On the IE scale, there was a significant difference in the effects of sex ( $F_{1,74} = 5.69$ ). In Table 7, it is observed that males scored higher than females. There were no significant differences in year and interaction of year with sex.

On the PO scale, there were significant differences in year and sex singularly ( $F_{1,74} = 6.13$ ;  $F_{1,74} = 4.10$ ). In Table 7, it is observed that two-year males and females scored higher than four-year males and females. There was no significant difference in the effects of interaction of year with sex.

On the MF scale, there were significant differences in year and sex singularly ( $F_{1,74} = 8.18$ ;  $F_{1,74} = 26.56$ ). In Table 7, it is observed that males scored higher than females. There was no significant

difference in interaction of year with sex.

On the RB scale, there was a significant difference in the effects of sex ( $F_{1,74} = 4.66$ ). In Table 7, it is observed that four-year males scored highest. There were no significant differences due to year or interaction of year with sex.

#### Analysis of Variance for SOV Scales

The analysis of variance for the variables included in the SOV may be found in Table 8. On the TH scale, there was a significant difference in the effect of sex ( $F_{1,88} = 19.18$ ). In Table 9, it may be observed that the males scored higher than the females. No significant differences were observed in year and interaction of year with sex.

On the EC scale, there was a significant difference in the effect of sex ( $F_{1,88} = 4.39$ ). In Table 9, it may be observed that the males scored higher than the females. No significant differences were observed in year and interaction of year with sex.

No significant differences due to year, sex, and year by sex were indicated on three scales. The three scales which had no significant differences were the AE, SO and PO.

On the RE scale, there was a significant difference in the effects of sex ( $F_{1,88} = 9.68$ ). In Table 9, it may be observed that females scored higher than males.

TABLE 8  
ANALYSIS OF VARIANCE FOR SOV SCALES

Scale	Source	DF	Sum of Squares	Mean Squares	F
TH	Year	1	.00	.00	.0
	Sex	1	955.80	955.80	19.18*
	Year & Sex	1	10.11	10.11	.20
	Error	88	438.00	49.83	
EC	Year	1	20.10	20.10	.47
	Sex	1	185.31	185.31	4.39*
	Year & Sex	1	70.66	70.66	1.67
	Error	88	3716.66	42.33	
AE	Year	1	29.39	29.39	.69
	Sex	1	.01	.01	.00
	Year & Sex	1	.26	.26	.01
	Error	88	3725.30	42.33	
SO	Year	1	37.84	37.84	.77
	Sex	1	173.99	173.99	3.54
	Year & Sex	1	.02	.02	.00
	Error	88	4321.23	49.10	
PO	Year	1	14.88	14.88	.46
	Sex	1	1.77	1.77	.05
	Year & Sex	1	.21	.21	.01
	Error	88	2841.26	32.29	
RE	Year	1	169.84	169.84	1.58
	Sex	1	1040.46	1040.46	9.68*
	Year & Sex	1	153.58	153.58	1.43
	Error	88	9455.02	107.44	

\*significant at .05 level

TABLE 9  
MEAN SCORES FOR SOV SCALES\*

Scale	2 Year	4 Year	Male	Female	2 Year Male	2 Year Female	4 Year Male	4 Year Female	Normative 4 Year Male	Normative 4 Year Female
TH	37.11	37.11	40.60	34.18	39.92	34.04	41.50	34.28	43.09	36.50
EC	38.91	37.98	40.05	37.10	39.46	38.32	40.83	36.14	42.05	36.85
AE	45.96	47.09	46.45	46.58	45.92	46.00	47.17	47.04	36.72	43.86
SO	39.65	40.93	38.71	41.62	38.33	41.09	39.22	42.04	37.05	41.62
PO	35.70	36.50	36.19	36.02	35.88	35.50	36.61	36.43	43.22	38.00
RE	42.83	40.11	38.02	44.36	40.79	45.04	34.33	43.82	37.88	43.13

\*based on raw scores

### Analysis of Variance for MAP Scales

The analysis of variance for the variables included in the MAP may be found in Table 10. On the  $T_1$  scale, no significant differences were observed in year, sex or interaction of year with sex. On the  $T_2$  scale, there was a significant difference due to the effects of sex ( $F_{1,108} = 4.12$ ). In Table 11, it may be observed that the males scored higher than the females. There were no significant differences in year and interaction of year with sex.

On the  $R_1$  scale, no significant differences were observed in year, sex and interaction of year with sex. On the  $R_2$  scale, there was a significant difference in the effects of year ( $F_{1,108} = 13.97$ ). In Table 11, it may be observed that four-year students scored higher than two-year students. There were no significant differences in sex and interactions of year with sex.

On the  $S_1$  scale, no significant differences were observed in year, sex and interaction of year with sex. On the  $S_2$  scale, no significant differences were observed in year, sex and interaction of year with sex. On the  $S_3$  scale, no significant differences were observed in year, sex and interaction of year with sex.

### Multivariate Analysis of Variance

The multivariate analyses of variance over all combined scores for each test are shown in Table 12. The values of the Roy's Maximum Root Criterion were compared with  $\alpha = .05$  critical values obtained from Multivariate Statistical Methods.<sup>2</sup>

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<sup>2</sup>D. M. Morrison, Multivariate Statistical Methods (New York: McGraw-Hill, 1967), pp. 312-19.

TABLE 10  
ANALYSIS OF VARIANCE FOR MAP SCALES

Scale	Source	DF	Sum of Squares	Mean Squares	F
T <sub>1</sub>	Year	1	12.22	12.22	.53
	Sex	1	4.53	4.53	.20
	Year & Sex	1	12.92	12.92	.56
	Error	108	2483.60	23.00	
T <sub>2</sub>	Year	1	94.72	94.72	3.42
	Sex	1	113.94	113.94	4.11*
	Year & Sex	1	66.84	66.84	2.41
	Error	108	2989.06	27.68	
R <sub>1</sub>	Year	1	28.00	28.00	2.45
	Sex	1	21.64	21.64	1.89
	Year & Sex	1	1.38	1.38	.12
	Error	108	1234.94	11.43	
R <sub>2</sub>	Year	1	165.14	165.14	13.97*
	Sex	1	4.78	4.78	.40
	Year & Sex	1	.36	.36	.03
	Error	108	1276.82	11.82	
S <sub>1</sub>	Year	1	21.44	21.44	1.84
	Sex	1	.14	.14	.01
	Year & Sex	1	1.81	1.81	.15
	Error	108	1261.10	11.68	
S <sub>2</sub>	Year	1	.72	.72	.06
	Sex	1	14.66	14.66	1.23
	Year & Sex	1	.08	.08	.01
	Error	108	1284.60	11.89	
S <sub>3</sub>	Year	1	9.72	9.72	.96
	Sex	1	1.15	1.15	.11
	Year & Sex	1	.60	.60	.06
	Error	108	1099.52	10.18	

\*significant at .05 level

TABLE 11  
 MEAN SCORES FOR MAP SCALES\*

Scale	2 Year	4 Year	Male	Female	2 Year Male	2 Year Female	4 Year Male	4 Year Female	Normative 4 Year
T <sub>1</sub>	61.14	62.28	61.89	61.55	61.90	60.33	61.88	62.61	63.7
T <sub>2</sub>	61.57	64.27	64.61	61.34	64.24	58.70	65.04	63.64	66.0
R <sub>1</sub>	59.50	62.88	61.89	60.53	60.10	58.85	63.96	62.00	64.1
R <sub>2</sub>	61.89	66.95	64.41	64.43	62.24	61.52	66.92	66.97	66.6
S <sub>1</sub>	58.82	60.91	59.60	59.93	59.21	58.41	60.48	61.26	61.0
S <sub>2</sub>	59.59	60.07	60.74	58.98	60.21	58.92	61.36	59.03	61.8
S <sub>3</sub>	60.38	62.09	61.24	61.22	60.24	60.52	62.40	61.84	62.6

\*based on standard scores



TABLE 12

## MANOVA ON OPI

Source	Roy's Maximum Root Criterion
Year	.424
Sex	1.101*
Year & Sex	.267

## MANOVA ON SOV

Source	Roy's Maximum Root Criterion
Year	.110
Sex	.280*
Year & Sex	.960

## MANOVA ON MAP

Source	Roy's Maximum Root Criterion
Year	.12*
Sex	.01
Year & Sex	.02

\*significant at .05 level

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### Tests of Significance

The analyses of the data revealed that three null hypotheses were rejected and three failed to be rejected. Null hypothesis No. 1: There are no significant differences between two-year and four-year college freshmen music students in personality characteristics. Failed to be rejected. The MANOVA test did not reveal a significant difference in personality characteristics by year.

Null hypothesis No. 2: There are no significant differences between two-year and four-year college freshmen music students in values. Failed to be rejected. The MANOVA test did not reveal a significant difference in values by year.

Null hypothesis No. 3: There are no significant differences

between two-year and four-year college freshmen music students in musical aptitude. Rejected. The MANOVA test revealed a significant difference between the two-year group and the four-year group in musical aptitude.

Null hypothesis No. 4: There are no significant differences between males and females in the sample groups in personality characteristics. Rejected. The MANOVA test revealed that a significant difference existed between males and females in personality characteristics.

Null hypothesis No. 5: There are no significant differences between males and females in the sample groups in values. Rejected. The MANOVA test revealed that a significant difference existed between males and females in values.

Null hypothesis no. 6: There are no significant differences between males and females in the sample groups in musical aptitude. Failed to be rejected. The MANOVA test did not reveal a significant difference between males and females in musical aptitude.

#### Means

Raw score means of all variables for the OPI are shown in Table 7 for the intrastudy sample and the normative sample. It is to be noted that the sample groups in this study were students entering music programs, whereas the normative sample was based on a sampling of entering general students at diverse institutions of higher learning. The means for the sample groups are given by year, sex, and year by sex.

Raw score means of all variables for the SOV are shown in Table 9 for the intrastudy sample and the normative sample. It is to be noted that virtually all of the normative sample was based on students enrolled

in liberal arts colleges who were pursuing a program of liberal arts study. The means for the sample groups are given by year, sex and year by sex.

Standard score means of all variables for the MAP are shown in Table 11 for the intrastudy sample and the normative sample. It is to be noted that the normative sample was based on representative groups of freshmen music students enrolled in midwestern colleges and universities. The means for the sample groups are given by year, sex and year by sex.

#### Intercorrelation Coefficients

The SOV test intercorrelation coefficients are shown in Table 13 for the two-year and four-year college freshmen music student sample.

TABLE 13

#### INTERCORRELATIONS WITHIN SOV SCALE

	TH	EC	AE	SO	PO	RE
TH		.12	.12	-.36	.15	-.68
EC	.12		-.22	-.36	.23	-.43
AE	.12	-.22		-.25	-.05	-.35
SO	-.36	-.36	-.25		-.48	.22
PO	.15	.23	-.05	-.48		-.42
RE	-.68	-.43	-.35	.22	-.42	

The MAP test intercorrelation coefficients are shown in Table 14 for the two-year and four-year college freshmen music student sample.

TABLE 14  
INTERCORRELATIONS WITHIN MAP SCALE

	T <sub>1</sub>	T <sub>2</sub>	R <sub>1</sub>	R <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>
T <sub>1</sub>		.76	.57	.47	.25	.32	.32
T <sub>2</sub>	.76		.68	.60	.31	.43	.31
R <sub>1</sub>	.57	.68		.69	.45	.54	.53
R <sub>2</sub>	.47	.60	.69		.46	.47	.53
S <sub>1</sub>	.25	.31	.45	.46		.50	.52
S <sub>2</sub>	.32	.43	.54	.47	.50		.53
S <sub>3</sub>	.32	.31	.53	.53	.52	.53	

The OPI test intercorrelation coefficients are shown in Table 15 for the two-year and four-year college freshmen music student sample.

#### Interpretation of the Data

##### Data Pertaining to OPI

The four-year males in scoring above the median IDC score tend to indicate that they appear to be more intellectually involved in their pursuit of music activities than the rest of the sample. Scores at the lower end of the IDC indicate a tendency to pursue learning for the intrinsic satisfactions gained from the acquisition of knowledge; scores at the upper end, approaching IDC-8, indicate a tendency to pursue learning as a means to an end. The four-year males scored significantly higher on the continuum from 1 to 8.

The four-year males in scoring higher on the TI tend to indicate that they express broader interests and are less dominated by commonly accepted ideas. Observing that both the two-year and four-year males scored higher on the T0 tends to indicate that they are more oriented toward the scientific method of thinking. High scorers are generally more logical, analytical, and critical in their approach to problems.

TABLE 15

## INTERCORRELATIONS WITHIN OPI SCALE

	IDC	TI	TO	ES	CO	AU	RO	SE	IE	PI	AL	AM	PO	MF	RB	
IDC		-.84	-.76	-.63	-.76	-.47	-.38	-.13	-.42	.10	-.06	-.27	.58	.01	-.26	IDC
TI	-.84		.68	.57	.52	.37	.22	.30	.27	.04	.14	.44	-.60	-.08	.32	TI
TO	-.76	.68		.33	.57	.35	.42	.10	.26	-.01	.06	.20	-.49	.26	.39	TO
ES	-.63	.57	.33		.40	.23	.13	.12	.34	-.27	-.14	.29	-.21	-.51	.01	ES
CO	-.76	.52	.57	.40		.54	.49	.01	.58	-.25	.00	.07	-.62	.03	.03	CO
AU	-.47	.37	.35	.23	.54		.57	-.13	.36	-.16	-.01	.07	-.59	-.04	-.11	AU
RO	-.38	.22	.42	.13	.49	.57		-.20	.57	-.20	-.03	-.34	-.20	.25	-.11	RO
SE	-.13	.30	.10	.12	.01	-.13	-.20		.01	.31	.36	.46	-.26	-.23	.20	SE
IE	-.42	.27	.26	.34	.58	.36	.57	.01		-.52	-.27	-.30	-.15	.03	-.43	IE
PI	.10	-.01	-.27	-.25	-.16	-.20	.31	-.52			.70	.45	-.13	.28	.64	PI
AL	-.06	.14	.06	-.14	.00	-.01	-.03	.36	-.27	.70		.33	-.27	.31	.46	AL
AM	-.27	.44	.20	.29	.07	.07	-.34	.46	-.30	.45	.33		-.46	-.36	.40	AM
PO	.58	-.60	-.49	-.21	-.62	-.59	-.20	-.26	-.15	-.13	-.27	-.46		.01	-.23	PO
MF	.01	-.08	.26	-.51	.03	-.04	.25	-.23	.03	.28	.31	-.36	.01		.23	MF
RB	-.26	.32	.39	.01	.03	-.11	-.11	.20	-.43	.64	.46	.40	-.23	.23		RB

Perhaps the results of this scale reflect the cultural phenomenon that males are associated more with scientific matters and that females are associated more with artistic matters.

The fact that both four-year males and females scored higher on the ES tends to indicate that they have a higher level of sensitivity toward artistic stimulation. This may go beyond a higher sensitivity toward art and music and include literature and drama. The lower scores of the two-year males and females on the ES may account in part for the lack of interest in cultural activities. Also, it may be a reflection of a greater tendency for two-year college students to enroll in music for the purpose of determining whether they want to study music as a vocation since many two-year college students are unsure of a vocational choice when they enroll.

The higher score of the four-year males on the CO tends to indicate that they like to play with new ideas and are tolerant of uncertainties and ambiguities. Also, the higher score of the four-year males on the AU tends to indicate that they are more non-authoritarian.

The fact that the four-year males scored higher on the R0 tends to indicate that they may be more skeptical of conventional religious beliefs than lower scorers. High scorers tend to reject fundamental beliefs. This would tend to indicate that the four-year males may not be restricted by fundamental beliefs in their search for truths.

The fact that the two-year and four-year males scored higher on the IE tends to indicate that they may possess a general readiness to express impulses and seek gratification either in conscious thought or

in overt action. They may also possess a more active imagination.

The fact that the two-year males and females scored higher on the P0 tends to indicate that they are more authoritarian, conservative, and non-intellectual. An above-average score may also indicate a tendency toward being interested in practical or applied activities. On tests, high scorers prefer short factual questions to those requiring organization of ideas. The higher scores of the two-year males and females on the P0 reveal implications for curriculum planning. Perhaps the courses in the music curriculum should be structured such as to permit the learning of unfamiliar material through its most basic elements. Therefore, it probably would be inadvisable to use "chunking," a method whereby a considerable portion of material is given at one time without breaking the material down into the fundamental components. At times, it may be necessary to use "directed" learning techniques since the students may not be able to ascertain the full implications of a question.

The higher scores of the two-year and four-year males on the masculine-feminine scale tend to indicate that they are more oriented toward the scientific areas of learning since low scorers have a tendency to be more interested in dramatics, art, and literature. These differences may represent a cultural phenomenon.

The fact that the four-year males scored higher on the RB tends to indicate that they may enjoy solving the type of problems found in geometry, philosophy, or logic. They may also be more research oriented.

### Data Pertaining to SOV

The fact that the males scored higher than the females on the TH would tend to indicate that they follow the national norms for males. High scorers tend to seek utility in objects and objectives, to observe and to reason. Also, the fact that the four-year males scored higher on the EC would tend to indicate that they follow the national norms for males. High scorers are interested in knowledge which is useful.

Although there were no differences between groups either by year or sex on the AE, the fact that both males and females scored well above national norms tends to indicate that they are interested in artistic endeavors. The higher scores of the four-year males on both the EC and AE may indicate that they are interested in music for commercial reasons.

The fact that both males and females scored very near the national norms on the SO would tend to indicate that they possess an average love of people. Also, the fact that both males and females scored below the national norms on the PO would tend to indicate that they place a lower value on power than does the average. Personal power, influence, and renown are not valued by the sample group to the degree indicated by the normative sample.

The higher scores of the two-year and four-year females on the RE would tend to indicate that they follow the national norm. The mean scores for both males and females are very close to the scores for the normative group.



#### Data Pertaining to MAP

The fact that no significant differences existed between groups on  $T_1$  would tend to indicate that melodic judgments made by both groups are similar. This may be due in part to singing and listening melodically to a greater degree from early childhood.

The higher scores of the males on the  $T_2$  would tend to indicate that they may be able to make judgments involving lower pitches more accurately than females. This difference in judgment of tonal imagery within a harmonic context may be due in part to the fact that changes in the musical sentences were made in the lower part. Males may be able to detect changes in lower pitches more accurately than females because of familiarity with singing in the register in which the changes were made.

The fact that no significant differences existed between groups on the  $R_1$  would tend to indicate that they are similar in detecting inconsistencies in tempi.

The higher scores of the four-year group on the  $R_2$  would tend to indicate that this group may be able to detect changes in meter to a greater degree than the two-year group. The fact that the four-year group may be able to respond better to meter changes within a melodic context may be due in part to the type of previous musical training.

No significant differences were observed between groups in "Musical Sensitivity." Since no significant differences existed in  $S_1$ ,  $S_2$  and  $S_3$ , it would tend to indicate that both groups expressed similar preferences in phrasing, balance and style of the music performed.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Introduction

The number of research studies involving two-year college general students has been greater than studies involving two-year college music students. The relative recency of two-year college music programs and non-research attitudes of music educators involved may have contributed to the lack of research in this segment of higher education. Since studies have revealed that the two-year colleges serve general students with different social and economic backgrounds, there appears to be a need to study the characteristics of music students enrolled in two-year colleges to find out if there are differences between two-year and four-year college music students. An investigation of two-year college music students may not only reveal implications for curriculum planning but may also contribute to the effectiveness of articulation between the two institutions of higher education.

The general goals of this study were to investigate the cognitive, valuational and aptitudinal characteristics of entering freshmen music students in two-year and four-year colleges. To achieve the first goal, the Omnibus Personality Inventory (OPI) was given to two-year and four-year college music students to determine intellectual orientations. To achieve the second goal, the Study of Values (SOV) was given to both groups to determine the value structures. To achieve the third goal, the

Musical Aptitude Profile (MAP) was given to both groups to determine the musical aptitude.

The purpose of this study was to find out whether differences existed between freshmen two-year and four-year college music students in personality, values and musical aptitude.

#### Procedures

This study was involved with determining if there were year and sex differences between two-year and four-year college music students in personality, values and musical aptitude. The OPI was used as the measuring instrument for personality characteristics; the SOV was used as the measuring instrument for values; and the MAP was used to measure musical aptitude.

Six null hypotheses tested in this study were: (1) There are no significant differences between two-year and four-year college freshmen music students in personality characteristics; (2) there are no significant differences between two-year and four-year college freshmen music students in values; (3) there are no significant differences between two-year and four-year college freshmen music students in musical aptitude; (4) there are no significant differences between males and females in the sample groups in personality characteristics; (5) there are no significant differences between males and females in the sample groups in values; and (6) there are no significant differences between males and females in the sample groups in musical aptitude.

The two-year sample group consisted of students enrolled in music programs at Tidewater Community College and Virginia Western Community

College in Virginia. The four-year sample group consisted of students enrolled in music at Madison College in Virginia. Students in freshman music theory classes served as subjects.

For each of the three tests, univariate analysis of variance was performed on each subtest to assess statistical differences between two-year and four-year college students and between males and females. A multivariate analysis of variance was used to examine overall significant differences of the three main tests. Means were computed for all variables and comparisons were made with normative samples. Intercorrelation coefficients were computed between all subtests within each of the three main tests. Raw scores were used for statistical analysis.

#### Analysis of the Data

Analyses of the data for this study were achieved through the use of Multivariate Analysis of Variance (MANOVA). In addition, univariate analysis of variance was used to assess the differences for each subtest.

The six null hypotheses were tested at the .05 level of confidence. Roy's Maximum Root Criterion was used for the test of significance. The following resulted: (1) the first null hypothesis failed to be rejected since MANOVA revealed that no significant differences existed in personality characteristics by year; (2) the second null hypothesis failed to be rejected since MANOVA revealed that no significant differences existed in values; (3) the third null hypothesis was rejected since MANOVA revealed that a significant difference existed in musical aptitude by year; (4) the fourth null hypothesis was rejected since MANOVA revealed that a significant difference existed in personality by sex; (5) the fifth null

hypothesis was rejected since MANOVA revealed that a significant difference existed in values by sex; and (6) the sixth null hypothesis failed to be rejected since it was revealed that no significant differences existed by sex in musical aptitude.

### Conclusions

An examination of the analyses revealed that a significant difference existed between the two-year and four-year college groups in overall musical aptitude. This was due in part to the strength of the difference between groups in the "Rhythm Imagery-Meter" subtest where the four-year group scored significantly higher. There was a significant difference by sex on the "Tonal Imagery-Harmony" subtest. The males scored significantly higher when the subjects were called upon to make judgments of tonal change when it occurred in a lower pitched instrument. The males could perceive tonal changes in lower pitches to a greater degree than the females.

An examination of the analyses revealed that a significant difference existed between the males and females in personality characteristics. The four-year males scored significantly higher in intellectual disposition. Included in intellectual concerns are a person's interest in working with ideas and abstractions, the level of theoretical orientations and aesthetic interests and sensitivities. The significantly higher scores of the four-year males on the TI, TO, CO, AU, RO and RB revealed that they possess an interest in learning for its intrinsic value; they are independent, liberal and are less committed to fundamental beliefs which may attenuate further inquiry; they possess a higher level

of sensitivity for artistic stimulation. The two-year and four-year males scored significantly higher on the IE and the MF. The four-year group scored higher on the ES. The two-year group scored higher on the PO. Of the aforementioned, the IDC and the AU, RO and ES singularly measure characteristics relevant to an interest in learning and an attitude for inquiry. The higher scores of the two-year group on the Practical Outlook (PO) indicates that they work better with concrete facts than with abstract ideas and that they enjoy short factual questions to those which require organization. The fact that the two-year group scored lower on the AU, RO and ES reinforces results of previous studies for general students which found that two-year college students are more authoritarian, less independent and more conservative.

An examination of the analyses revealed that a significant difference existed between males and females in value structures. This was to be expected since norms are given for both males and females. The females demonstrated a feminine profile in scoring higher on the aesthetic, social and religious. The males demonstrated a mixed masculine profile in scoring high on the theoretical, economic and aesthetic.

#### Recommendations

It should be kept in mind that generalizations cannot be made for other geographical areas from the results of this study. Therefore, it would seem that further research into differential characteristics should be conducted in other geographical areas to provide data for a more complete assessment.

BIBLIOGRAPHY

## BIBLIOGRAPHY

Books

- Allport, Gordon W.; Vernon, Philip E.; and Lindzey, Gardner. Study of Values. New York: Houghton Mifflin, 1960.
- Barr, Anthony James, and Goodnight, James Howard. Statistical Analysis System Manual. Raleigh, N.C.: North Carolina State University, 1970.
- Brewster, Smith M. Social Psychology and Human Values. Chicago: Aldine Publishing Co., 1969.
- Bruner, Jerome S. The Process of Education. Bantam-Vintage Books, New York: Alfred A. Knopf, 1963.
- Bruner, Jerome S.; Goodnow, Jacqueline J.; and Austin, George A. A Study of Thinking. New York: John Wiley, 1967.
- Bushnell, D. S. Organizing for Change: New Priorities for Community Colleges. New York: McGraw-Hill, 1973.
- Corey, Fay L. Values of Future Teachers. New York: Columbia University Press, 1955.
- Gleazer, Edmund J. A New Social Invention: The Community College, What It Is. Washington, D.C.: American Association of Junior Colleges, 1962.
- Gordon, Edwin. Musical Aptitude Profile. New York: Houghton Mifflin Co., 1965.
- Hall, Calvin S., and Lindzey, Gardner. Theories of Personality. New York: John Wiley, 1970.
- Handy, Rollo. Value Theory and the Behavioral Sciences. Springfield, Illinois: Charles C. Thomas, 1969.
- Heist, Paul, and Yonge, George. Omnibus Personality Inventory. New York: The Psychological Corp., 1968.
- Jacob, P. E. Changing Values in College. New York: Harper Bros., 1957.
- Koos, Leonard V. The Community College Student. Gainesville, Florida: University of Florida Press, 1970.



- Lehman, Paul R. Tests and Measurements in Music. Englewood Cliffs, New Jersey: Prentice-Hall, 1968.
- Lundin, Robert W. An Objective Psychology of Music. New York: Ronald Press, 1967.
- Maslow, Abraham H. The Farther Reaches of Human Nature. An Esalen Book, 1971; New York: Viking Press, 1972.
- Morris, Charles. Paths of Life. New York: George Braziller, 1956.
- Morris, Charles. Varieties of Human Value. Chicago: University of Chicago Press, 1956.
- Morrison, D. M. Multivariate Statistical Methods. New York: McGraw-Hill, 1967.
- Parsons, T., and Shils, E.A. Toward a General Theory of Action. Cambridge, Mass.: Harvard University Press, 1951.
- Perry, Ralph B. Realms of Value. Cambridge, Mass.: Harvard University Press, 1954.
- Raths, Louis E.; Harmin, Merrill; and Simon, Sidney B. Values and Teaching. Columbus, Ohio: Charles E. Merrill, 1969.
- Rogers, Carl. Freedom to Learn. Columbus, Ohio: Charles E. Merrill, 1969.
- Sanford, N. Self and Society. New York: Atherton Press, 1966.
- Skinner, B. F. Beyond Freedom and Dignity. New York: Alfred Knopf, 1971; Bantam Books, 1972.
- Tiedeman, David. "Review of Study of Values." The Seventh Mental Measurement Yearbook. Edited by Oscar K. Buros. Highland Park, New Jersey: Gryphon Press, 1972.
- Webster, H. "VC Attitude Inventory and VC Preferity Changes in College Students." In N. Sanford (ed.) The American College. New York: John Wiley, 1961.
- Wheelis, Allen. The Quest for Identity. New York: W. W. Norton, 1958.

Periodicals

- Brown, Robert D. "An Investigation of the Relationship between the Intellectual and the Academic Aspects of College Life." Journal of Educational Research 61 (July-August, 1968): 439-41.
- Cady, Henry L. "Tests and Measures in Higher Education: School Music Teachers." Journal of Research in Music Education XV (Summer, 1967): 139-50.
- Cope, Robert G. "Selected OPI Scales and their Relationship to a College's Attrition." Educational and Psychological Measurement 28 (Summer, 1968): 599-603.
- Elton, Charles F. "Male Career Role and Vocational Choice: Their Prediction with Personality and Aptitude Variables." Journal of Counseling Psychology 14 (1967): 99-105.
- Gordon, Edwin. "A Comparison of the Performance of Culturally Disadvantaged Students with that of Culturally Heterogeneous Students on the Musical Aptitude Profile." Psychology in the Schools 4 (July, 1967): 260-62.
- Gordon, Edwin. "Implications for the Use of the Musical Aptitude Profile with College and University Freshman Music Students." Journal of Research in Music Education 15 (Spring, 1967): 32-40.
- Holtzman, Wayne H. "Personality Structure." Annual Review of Psychology. Edited by Paul R. Farnsworth 16 (1965): 119-56.
- Klein, George S.; Barr, Harriet L.; and Wolitzky, David L. "Personality." Annual Review of Psychology. Edited by Paul R. Farnsworth 18 (1967): 467-560.
- Lee, Robert E. "An Investigation of the Use of the Musical Aptitude Profile with College and University Freshman Music Students." Journal of Research in Music Education 15 (1967): 278-88.
- Rainbow, Edward L. "A Pilot Study to Investigate the Constructs of Musical Aptitude." Journal of Research in Music Education 13 (1965): 3-14.
- Schleuter, Stanley L. "Use of Standardized Tests of Musical Aptitude with University Freshmen Music Majors." Journal of Research in Music Education 22 (1974): 258-69.
- Stewart, Lawrence H. "Change in Personality Test Scores During College." Journal of Counseling Psychology 11 (Fall, 1964): 211-20.

- Yonge, George D. "Personality Correlates of the College and University Environment Scales." Educational and Psychological Measurement 28 (Spring, 1968): 115-23.
- Young, William T. "Musical Aptitude Profile Norms for Use with College and University Nonmusic Majors." Journal of Research in Music Education 20 (Fall, 1972): 385-90.

#### Reference Works

- Duling, John. "A Comparison of Certain Selected Personality and Performance Dimensions of Music Students in Three San Francisco High Schools." Ed.D. dissertation, University of California (Berkeley), 1966.
- Molnar, Alex. Modes of Value Thinking in Curriculum. Paper presented at Annual Conference of Association for Supervision and Curriculum Development. Minneapolis, Minnesota (March, 1973).
- Kerlinger, Fred N. The Study and Measurement of Values and Attitudes. Paper presented at the American Educational Research Association. Chicago, Illinois (April, 1972).
- Tillery, Harry D. "Differential Characteristics of Entering Freshmen at the University of California and Their Peers at California Junior Colleges." Ph.D. dissertation, University of California (Berkeley), 1964.
- Tucker, Sylvia Boltz. "College and University Potential of Selected Junior College Students." Ed.D. dissertation, University of California (Los Angeles), 1964.

#### Publications by Associations and Government Agencies

- Fenske, Robert H. and Scott, Craig S. A Comparative Study of Recent Trends and Characteristics of Students Entering American Junior Colleges, 1968-1972. Iowa City, Iowa: The American College Testing Program, 1972.
- Music in the Junior College. By Edwin L. Stover, Chairman. Washington, D.C.: Music Educators National Conference, 1970.
- National Association of Schools of Music, Bulletin. February, 1967.
- National Association of Schools of Music. Proceedings of the Fiftieth Anniversary Meeting. Houston, Texas, 1974.

North Carolina Department of Administration, Supervision and Higher Education. Student Development: In Concept and Practice in the Community College. Boone, North Carolina: Appalachian State University, November, 1972.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 236. "Undergraduate Enrollment in Two-Year and Four-Year Colleges: October 1971." U.S. Government Printing Office, Washington, D.C., 1972.

APPENDIX A

## APPENDIX A

Description of OPI Scales<sup>1</sup>

1. TI: Persons scoring high on this scale are characterized by a liking of reflective thought and scholarly activities. Low scorers dislike reading serious works, reading serious poetry or spending leisure time writing essays.
2. TO: High scorers tend to display an interest in science and scientific activities, like to speculate about problems which have challenged experts and prefer the man of ideas to the practical man. Low scorers neither like to read scientific articles nor write about possible outcomes of scientific discovery. They prefer having theory explained rather than understanding it on their own.
3. ES: High scorers tend to have diverse interests in artistic matters and activities. Low scorers do not like to read about artistic and literary achievements or to make friends with sensitive and artistic people.
4. CO: High scorers tend to show a tolerance of ambiguities and uncertainties and have a fondness for novel situations and ideas. Low scorers do not like things to be uncertain and unpredictable, do not dislike regulations, are not politically radical. They prefer friends who are pleasant to those involved in difficult problems.
5. AU: High scorers tend to be non-authoritarian and need independence. Low scorers tend to feel that parents know best, that it is the responsibility of intelligent leaders to maintain an established order and that only a callous person does not feel love and gratitude toward his parents.
6. RO: High scorers tend to be skeptical of orthodox religious beliefs and practices. They deny that there is something wrong with a person who lacks religious feeling, that their church or denomination has the only true approach to God. Low scorers tend to believe that God exists, that He hears prayers and that what one believes does matter.
7. SE: High scorers tend to show a strong interest in people or being with them. Low scorers tend to avoid social gatherings and prefer to work alone.
8. IE: High scorers exhibit a readiness to express impulses and to seek gratification either in thought or action. They tend to have an active imagination and value sensual relations and feelings. Low scorers do not hate regulations, do not give teachers much trouble in school and would be uncomfortable in anything but fairly conventional dress.

9. PI: High scorers tend to admit to few attitudes and behaviors that characterize socially alienated persons. Low scorers tend to feel completely inadequate at times, have strange and peculiar thoughts and wonder who they really are and what they should be.
10. AL: High scorers deny feelings or symptoms of anxiety and do not admit to being nervous or worried. Low scorers find themselves worrying, have periods of restlessness, feel difficulties are piling up and are more sensitive than most people.
11. AM: High scorers tend to show strong concern for welfare and feelings of people. Low scorers tend not to consider feelings and welfare of others and often view people from an impersonal, distant perspective.
12. PO: High scorers tend to evaluate ideas and things in terms of immediate utility and value material possessions and concrete accomplishments. Low scorers tend to find a greater appeal in ideas than in facts, prefer the man of ideas to the practical man and do not feel that there is only one right answer to most questions.
13. MF: High scorers (masculine) deny interests in esthetic matters, admit to few adjustment problems and express an interest in scientific matters. Low scorers (feminine) like dramatics, enjoy looking at paintings, sculpture and architecture.
14. RB: High scorers enjoy thinking about challenging problems and solving problems of the type in geometry, philosophy and logic. They feel close to people. Low scorers tend to find it difficult to concentrate on a problem for more than an hour or two at a time, have had great periods of restlessness and find themselves listening without hearing.

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<sup>1</sup>Heist, Omnibus Personality Inventory Manual, pp. 4-7.

APPENDIX B



## APPENDIX B

Description of SOV Scales<sup>2</sup>

1. The Theoretical. Since the dominant interest of the theoretical person is presumed to be the discovery of truth, he adopts a cognitive attitude based on empirical, critical and rational thought.
2. The Economic. The dominant interest of the economic person is in things that are useful resulting in a utilitarian outlook on education.
3. The Aesthetic. Since the aesthetic person values form and harmony above all else, his chief interests are in the artistic occurrences of life. The aesthetic individual tends toward individualism and self-sufficiency.
4. The Social. The altruistic or philanthropic qualities of men characterize the individual as kind, sympathetic and unselfish toward others.
5. The Political. The political individual's primary interest in power leads him to value personal power, influence and fame.
6. The Religious. Since the religious individual's greatest value is in unity, he sees something divine in every event as he relates himself to the totality of the universe.

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<sup>2</sup>Allport, Study of Values Manual, pp. 4-5.

APPENDIX C

## APPENDIX C

Comparison of IDC Distributions

<u>Sample Group</u>			<u>Normative Group</u>		
IDC	f	PerCent	f	PerCent	IDC
1	0	0	19	1.5	1
2	2	2.08	65	5.1	2
3	4	4.17	123	9.6	3
4	7	7.29	177	13.8	4
5	19	19.79	273	21.2	5
6	47	48.96	425	33.0	6
7	9	9.38	125	9.7	7
8	8	8.33	80	6.2	8
	N = 96		N = 1287		

APPENDIX D

## APPENDIX D

Hierarchical Arrangement of Values  
Resulting from SOV

Rank	Two-Year Males	Two-Year Females	Four-Year Males	Four-Year Females
1	AE	AE	AE	AE
2	RE	RE	TH	RE
3	TH	SO	EC	SO
4	EC	EC	SO	PO
5	SO	PO	PO	EC
6	PO	TH	RE	TH