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TO WHAT EXTENT ARE THE PERSONALITY NEEDS OF THE
MUSIC STUDENTS OF THE DENTON SENIOR HIGH
SCHOOL BEING MET THROUGH MUSIC?

THESIS

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CHAPTER I

INTRODUCTION TO THE STUDY

Problem

The problem which is reported in these pages represents an attempt on the part of the writer to discover whether the music curriculum of the Denton Senior High School is meeting the personality needs of the students of the school. In order to discover a starting-point from which to attack this problem, the writer administered standardized personality and music tests to the students enrolled in her music classes. The results of these tests form the primary basis of the investigation and of this thesis. Of course, in pursuing this study, it was necessary to discover the personality status of the participating students, and to analyze personality deficiencies. Then the next logical step was to investigate the musical status of the students and to compare it with personality status in an effort to determine whether any definite relationship existed between personality and music as relating to this particular group of students. These procedures and their results constitute the problem under consideration.

Situation

This study was carried out by the writer in her music classes in the Denton Senior High School, Denton, Texas. No particular attempt was made to select the personnel of the classes with regard to sex, intelligence, chronological age, musical ability, or any other basis of grouping. For purposes of comparison, all first- and second-year music students were requested to participate in the study. The personality and music tests were given to all members of the classes in Music I (first-year students) and Music II (second-year students). Then the writer eliminated from the study those students whose records were incomplete and those who, because of absence from school on the day the tests were given, had no test scores at all. Hence, only records that were complete in every detail have been utilized in this study.

Sources of Data

With the exception of the second chapter of this thesis, which is a survey of literature on music and personality, this study is based on data derived from the personality and music tests which were given to the students.

In collecting data on the personality status of the students, the writer used the Secondary Series of the California Test of Personality, which emphasizes self-adjustment and social adjustment. The items considered under self-adjustment are self-reliance, sense of personal worth, sense

of personal freedom, feeling of belonging, freedom from withdrawing tendencies, and freedom from nervous symptoms. The phases of social adjustment that are included in the test are social standards, social skills, freedom from anti-social tendencies, family relations, school relations, and community relations.

Two standardized music tests were given to the same group of students. One was the Kwalwasser-Ruch Test of Musical Accomplishment, which includes fundamental material on the knowledge of musical symbols and terms, recognition of syllable names, detection of pitch errors, recognition of time errors, recognition of pitch names, knowledge of time signatures, knowledge of key signatures, knowledge of note values, knowledge of rest values, and recognition of familiar melodies from notation.

The other music test given was the Kwalwasser Test of Music Information and Appreciation, which includes material on classification of artists, nationality of composers, composers of famous compositions, classification of composers by types of compositions, general knowledge of composers and compositions, production of tones on orchestral instruments, classification of orchestral instruments, general knowledge of instrumentation, and general knowledge of music structure and form.

Organization and Treatment of Data

The second chapter of this thesis, as has been stated, consists of a survey of literature on the relationship of music in the high school to the personality of high school students. Somewhat detailed attention is devoted to a brief history of music education in the public schools of the United States, to the aims of music education, to the personality needs of high school students, and to the influence of music upon the personality of high school students.

Chapters III, IV, and V of this thesis consist of analyses of the data obtained from the submission of the three tests already described. The third chapter presents material on the status of the personality of the music students of the Denton Senior High School. The fourth chapter is devoted to an analysis of the musical talents and accomplishments of these same students, and the fifth chapter consists of an analysis of the degree of musical information and appreciation possessed by these students. In relation to each test, various bases of comparison were employed, such as relationships between intelligence quotients and personality, musical accomplishment, and musical information and appreciation. Wherever possible, comparisons are also made on the basis of years of music studied in the high school.

Of course, the most vital comparison included in this study is an analysis of the relationship between personality

and musical accomplishment, and personality and musical information and appreciation. These relationships are brought out in the last chapter in the form of a summary of the study, accompanied by certain conclusions and recommendations that seem logically to grow out of the investigation.

CHAPTER II

RELATIONSHIP OF MUSIC IN THE HIGH SCHOOL TO PERSONALITY DEVELOPMENT OF HIGH SCHOOL STUDENTS

History of Music Education in the United States

In the hundred years and more since 1838, when public school music was first introduced, most of the educational history of the United States has been made. Not only has education shown amazing advancement and progress, for science, industry, transportation and commerce, and every other facet of life have undergone such changes and have experienced such progress as to have been completely revolutionized. In that period the educational system has advanced from the simple little district school with the three R's as the curriculum and with a smattering of singing for diversion, to a highly complicated school plant and program, with music functioning adequately and importantly in many different activities, and with large and efficient high school orchestras playing symphonies and with well-trained choruses singing the great oratorios.¹

Public school music in the United States grew directly

¹Edward Bailey Birge, History of Public School Music in the United States, p. 1.

out of the need for improving the singing in the church services. Although many of the early colonists probably possessed musical talents and appreciations, the leaders of public opinion in the New England colonies and in most of the others did not encourage cultivation of musical ability, for music's power to give pleasure caused it to be looked upon with suspicion and resulted in its virtual prohibition among those with Puritanical concepts. For at least a century after the establishment of the first colonies, music education as such was unknown. Of course, for many decades, the physical and social environment of the people stood in the way of serious attention to music, and musical culture throughout the seventeenth century declined almost to the vanishing point.

The spiritual exaltation which sustained the early settlers came through other channels than music. Such music as they tolerated was, to be sure, of a strictly religious character, and was confined to congregational singing in the meeting-houses, as the churches were called in New England. There were no music teachers, few if any instruments of any kind, no singing societies, and little printed music. The diversion of music, and even less any serious cultivation of the art, was no part of the life of a people whose every-day business was that of subduing the forests, building homes, fighting the Indians, cultivating the soil, and providing for the bare necessities of life, matters which occupied all of their waking hours.²

Music during this period was undergoing a rapid development in Europe, chiefly, however, in the courts of the kings and the homes of the wealthy nobility, from which the struggling colonists of the New World were far removed.

²Ibid., pp. 2-3.

During the first century of the colonies, church music was confined to congregational singing of metrical versions of the Psalms. Only four or five tunes, handed down by tradition, were commonly used. Until after 1740, hymns other than paraphrases of the Psalms were unknown. At that time, however, the hymns of Watts and Wesley began to be reprinted in this country. Only after much controversy was it decided that there was to be any singing at all. Certain enlightened ministers were chiefly responsible for including in the services songs other than Psalms.

Until well into the eighteenth century singing in church services was in a crude and barbarous state. There was no harmony, and everyone sang the few unwritten monotonous tunes in his own way, until the whole resembled a bedlam. That music was not wholly without significance in the seventeenth century is indicated by the fact that the second book printed in America was The Bay Psalm Book, a metrical version of the Psalms (1640). The book contained no music, however, until the ninth edition (1698) offered thirteen tunes in two-part harmony.³

In the early days in this country, and in some cases until quite recently, congregational singing was conducted by "lining out" the tune: a leader read the words of the Psalm, one line at a time, followed by repetition on the part of the people. The custom had originated in England for the benefit

³Ibid., pp. 3-5.

of those who were illiterate. Crude as it was, this method at least enabled the singers to begin each phrase together. There was no assurance that they would stay together, however, and the musical result was barbarously crude.

After the new edition of The Bay Psalm Book (1698), which contained music, considerable agitation arose for singing by "rule and art" and the "recall of notes," as music reading was then called. Strangely, attempts to improve the quality of the singing met with furious opposition, especially in Massachusetts. Many congregations were split over the question. The reformers finally won their point, and by 1723 a number of New England churches had begun singing by "rule and art." Other improvements slowly followed. The better singers discovered that they could produce a more satisfactory type of music by sitting together in a group in congregation. Out of this practice evolved the idea of the choir, which at length was given recognition and seated in a gallery or on a dais in the meeting-house. Under the musical leadership of the choir, the "lining out" procedure became unnecessary, though it was discarded only after bitter controversy.⁴

A logical outgrowth of this condition of affairs and the urgent need for instruction in the rudiments of music was the singing-school. The first practical instruction book in

⁴Ibid., pp. 6-7.

singing was prepared by the Rev. John Tufts of Newbury, and published in Boston in 1712 under the title, A very plain and easy Introduction to the Art of Singing Psalm Tunes; with the Cantus, or Trebles, of Twenty-eight Psalm Tunes contrived in such a manner as that the Learner may attain the Skill of Singing them with the greatest ease and Speed imaginable. The book, in spite of its formidable title, proved to be very successful, and was reprinted in many editions.

The first instruction book with printed music, and with the first music printed with bar-lines in America, was by the Rev. Thomas Walker of Roxbury, and was entitled, The Grounds and Rules of Musick Explained, or an Introduction to the art of singing by note. The book was printed on the press of James Franklin, a brother of Benjamin.

The Rev. Thomas Symmes was one of the most persistent advocates of the singing-school, and tirelessly spoke and wrote in the interest of the establishment of such schools. About 1720, singing-schools began to be established as a means of improving the quality of the music used in public worship. Such schools soon were flourishing here and there throughout the colonies. They were usually held at night, conducted in the school, the church, or in homes, by teachers who were otherwise occupied in the daytime, and who received fees for their musical efforts.⁵

⁵Ibid., pp. 7-12.

Soon the singing-school had justified its existence and had become a popular institution. It had begun in Boston, but rapidly spread throughout New England and the other colonies. Beginning as a crude choir school, it continued for a long time to place primary emphasis upon religious music, though it progressively adapted itself to new currents of social and political feeling which made themselves felt from generation to generation.

It was truly educational in that both of its major aims, the study of choral music and acquiring the art of music reading, laid the national foundations for musical culture and appreciation, the full strength of which did not become evident until the next period. And when we reflect that until music began to be taught in the public schools, the singing-school was the sole means of musical instruction in the popular sense of the word, that from the beginning it was allied with the church, the center of the social as well as the religious life of the community, and that old and young were drawn to it for the pleasure of singing together and for social intercourse, some of the reasons for its growth and its tenacious hold upon the affections of the people become plain.⁶

Music was the first of the expressive subjects to find a place in the curriculum of the public schools of this country. Persons who pioneered in advocating the introduction of music into the schools always based their arguments on the subject's practical rather than esthetic values, although the latter were by no means ignored. It speaks well for the generally recognized utility of music when it attained a place in American public schools at a time when every school

⁶Ibid., p. 11.

subject was being critically evaluated on the basis of its practical function in everyday life. Music apparently had become so intimately a part of community life that its practical values could be taken for granted, even by the strongest advocates of subject-matter utility.

For a long while the singing-school had been teaching the elements of music. Although only a small and selective minority of the people actually attended the singing-school, despite its widespread popularity, it was able effectively to accomplish its purpose with those who gave it a chance. Unfortunately, it came more and more to resemble the elective music class in present-day high schools. A common belief prevailed that only a talented few possessed a musical ear, and this fact conferred a pleasant sense of distinction upon those who could sing and read music.⁷

The idea of public school music was not originated by one man or group of men, either in Boston or elsewhere. The fact that music was introduced almost simultaneously in a number of school systems indicates that its desirability as a phase of the school program was being contemplated by many people in numerous localities. In Boston, public opinion as represented by prominent citizens was prepared to give music a trial in the public schools as soon as a successful demonstration of its worth could be conducted and adequate sponsorship procured. The demonstration was forthwith supplied

⁷Ibid., pp. 35-36.

by Lowell Mason, founder and director of the Boston Academy of Music, who, with his associates on the staff of the Academy, furnished the leadership to keep the issue before the public.⁸

In 1830, organized agitation for the addition of music to the public school curriculum was started in Boston by William C. Woodbridge, who delivered an address on "Vocal Music as a Branch of Common Education." A group of children under the direction of Mason, who had trained them, gave an effective demonstration to support Woodbridge's contentions. Woodbridge had recently spent some time in Europe, where he had studied methods of instruction in the schools. In Switzerland he had investigated the work of Nageli, who was successfully applying the principles of Pestalozzi to the teaching of music. His own opinion that music should be given a place in the American school system was confirmed by the practices of educational leaders in Switzerland and Germany.

Woodbridge attempted to start his plan of teaching music in the public schools in Hartford in 1830, but his experiment seems not to have been outstandingly successful. He shared his ideas with Lowell Mason, and entrusted him to carry them out. Mason's skill in teaching children and his position as a competent musician made him the logical leader of the movement. Mason incorporated Woodbridge's and his own concepts,

⁸Ibid., pp. 36-37.

both admittedly based upon Pestalozzi, into his Manual of Instruction (1834), which was, in essence, the first formulation of modern principles of teaching music in the United States.⁹

About 1832, Mason's "Juvenile Choir" began to sing in public concerts. The youthful singers were a popular sensation. Largely through the outstanding popularity of the choir, which proved beyond a doubt that music could profitably be taught to children, who were shown to be capable of attaining commendable accomplishments of a musical nature, a special committee of Boston citizens presented to the school board an elaborate report emphatically endorsing the addition of music as a regular study in the primary schools of the city. Although the school board seemed to look favorably upon the proposal, no official action was taken and the matter, for a time, was dropped. However, a few experimental lessons in music were given in the schools.

Agitation continued to gain strength and public favor. As an indication of the increased interest in music, 1,500 adults and children were taught music in Mason's Academy of Music in 1832. The Academy inaugurated a voluminous correspondence with educators in many states in the interest of music in the schools, thus gaining for itself a widespread recognition as the national sponsor of music education. In addition to bringing about the ultimate introduction of music

⁹Ibid., pp. 37-39.

into the Boston schools, the Academy succeeded in making the question a live issue in other states and cities.¹⁰

In 1836, four years after the first petition regarding placing music in the Boston school curriculum had been presented and tabled, the Academy of Music prepared a second recommendation, which was presented to the school board with the enthusiastic endorsement of many prominent citizens. The board appointed a special committee to study the problem and to prepare a recommendation as to what action the board should take. After several months of deliberation, the committee, in 1837, submitted an elaborate and favorable report. The school board, in September, 1837, considered and accepted the report. For some reason, however, the city council failed to make the expected appropriation that was necessary to put the plan into operation. It seemed that the project was once more doomed to frustration; but Lowell Mason, an unconquerable enthusiast, was determined not to lose the battle at this stage of the game. Consequently, he offered to donate his services as a teacher of music for a year in one of the schools of the city, and to furnish his own books and equipment. The offer was gratefully accepted by the school board. After the program had been in operation for several months, the mayor of Boston requested the administrators of the school in which the experiment was being carried on to

¹⁰Ibid., pp. 39-40.

present a report on the effectiveness of the project. So favorable was the report, and so well-received were the concerts given by the pupils of the school, that the school board voted to contract for the services of a teacher of vocal music in each of the Boston public schools, beginning with the 1838-1839 session.¹¹

The Boston Academy of Music, in its annual report, called the action of the school board, "the Magna Charta of musical education in this country." After eight years of concerted effort, the advocates of public school music had won their battle, and music was at last officially introduced into the public schools. The significance of the school board's action was not in allowing music to be taught in the schools. It had been permitted and even encouraged for several years, but always upon the individual initiative and responsibility of principals and teachers. The real significance of the action lay in the fact that now music was included in the curriculum by public authority, like the traditional three R's and other basic subjects.¹²

From 1838, when music was established in the Boston schools, until the Civil War, music was gradually introduced into the schools of the country at large. In more or less degree, the series of steps preceding the Boston adoption of music in the curriculum was repeated in other cities and states.

¹¹Ibid., pp. 40-45.

¹²Ibid., p. 55.

Music in the schools was always regarded as an experiment; it had to prove its expediency in each separate instance. It was an untried field, without guiding precedents, except the single Boston experiment and the school-music of Europe, which was little known in this country. There was no school-music profession, and only one Lowell Mason. On the other hand, interest in the subject was spreading. The Boston experiment was watched and studied by school men in near and distant states. The Boston Academy of Music worked actively and ceaselessly to prove the suitability and practicability of music as a school subject.¹³

Despite the widespread interest in music in the schools, it is a liberal estimate to say that not more than fifty official introductions of the subject into the curriculum occurred from 1838 to the Civil War.¹⁴

The first teachers of public school music came directly from the singing-school, as did their methods of instruction. Even the books in many instances were the same. Hence, for awhile, the public school music class was virtually a transplanted singing-school.

Singing-school techniques of teaching required little or no change when transferred to the public school. There was, of course, the difference that, in the public school, all of the children were to be taught singing instead of only the talented few. During this period, children attended school to obtain knowledge, which meant book knowledge. Music was included in this theory of education as well as all other subjects. Children were taught the elements of music, they became familiar with notes, and learned to read music. It

¹³Ibid., p. 57.

¹⁴Ibid., p. 72.

is worthwhile to point out that, in these early days at least, public school music completely fulfilled the expectations of its advocates; and all available contemporary testimony indicates that music was taught at least as well as the other subjects in the curriculum, and in many cases far more effectively.¹⁵

In one sense, the real beginnings of public school music occurred following the Civil War. Earlier introductions into the schools were relatively few, and occurred mainly in the cities where the schools were under the direction of a single school board. Until a decade after the Civil War, the prevailing type of school control throughout the country was the district school system, with each district of a town or country community managing its own school affairs. This situation was partly responsible for the slowness in adopting music. As late as 1886 the United States Commissioner of Education, in his report, declared that fewer than 250 school systems in the country were regularly teaching music. Agitation continued unabated, however, and marked advance in every phase of the general field of music helped to lend impetus to the movement. Among these significant items of progress may be mentioned the following, each of which might be accorded a detailed and interesting discussion: (1) the rapid rise of the private music teacher to the level of a

¹⁵Ibid., pp. 72-73.

recognized profession; (2) widespread choral activities and the consequent growth of popular music festivals; (3) the formation of symphony orchestras and regimental and concert bands; and (4) the rather rapid development of music in colleges and the establishment of independent conservatories of music.¹⁶

The combined effect of this four-fold influence upon general musical culture was very great. It raised the whole general interest in music to a higher level; it brought into existence a distinct musical profession, consisting of teachers, concert performers, and critics, together with a multitude of listeners of every degree of critical appreciation. And it paved the way slowly but inexorably for the introduction of music into all the public schools.¹⁷

In the period following the Civil War, the chief development for public education at large was the emphasis upon the need for well-trained teachers. Teaching advanced to the status of an art and a skilled profession. The spirit and principles of Pestalozzi constituted its guiding incentive. Subject matter was compiled and textbooks were written and rewritten to incorporate and conform to the new ideas. Private and public normal schools multiplied rapidly and trained thousands of students in the theory and practice of teaching. So pronounced was the need for trained teachers that many cities maintained training schools of their own.¹⁸

In the main, the grade teachers did not feel that it was a part of their duties to give music lessons, and this

¹⁶Ibid., pp. 82-85.

¹⁷Ibid., p. 85.

¹⁸Ibid., pp. 85-86.

remained the general attitude toward music until the normal schools began to include that subject in their curricula, and it was consequently discovered that music, to accomplish the best results, should be taught according to definite procedures. With this realization came increased emphasis upon the preparation of teachers specifically for the teaching of music.¹⁹ The normal schools and other teacher-training institutions met the need with as much speed and efficiency as possible, and persons who were skilled in the field of music produced books on method and techniques best suited to the proper teaching and learning of the subject.

During the period after the Civil War, music took its place in the public school by general acceptance, and systematic graded work from the first grade through the high school began in this era. The teaching of school music became a distinct profession,

absorbed in its relation, not to the general field of music, with which until the present century it largely lost touch, but rather to the field of general education, and in particular to the problem of teaching music to all the children of all the people.²⁰

Teachers of school music, confronted with the responsibility of teaching music to every child, gradually developed routines and techniques of teaching which were distinctly different from those of the singing-school and of the private teacher. Naturally, numerous conceptions arose as to what

¹⁹Ibid., p. 94.

²⁰Ibid., p. 108.

and how children should be taught. Two of these conceptions should be mentioned here in passing: (1) pupils, by a sort of rote-note process, should be taught as many songs as possible with the help of the teacher; and (2) they should learn to read music in order to sing the songs.

In the last decade of the nineteenth century, the whole field of education experienced two complementary, though seemingly contradictory, influences. One was due to Herbartian pedagogy, and laid stress upon detailed plans, perfected techniques of recitation, and emphasized the instructional side of teaching. The other was the beginning of the child-study movement, which emphasized spirit and individual personality rather than method. One of these influences, the first, magnified the activities of the teachers, whereas the other was interested in those of the children.

In connection with music, these two forces were applied on the one hand by the evolution of a teaching technique which proved that every child might be taught to read music, and on the other by a demand for more real music, more songs having beauty and charm, in the music lessons.

These two significant points of view were now brought before the attention of the whole profession by the medium of school-music journalism, the first publication of which began in 1899, when The Musical Courier started a department for public school music. In 1900, two publications devoted solely to school music made their first appearance: School

Music and School Music Monthly. These publications met a long-felt need; and many others were later to follow these pioneers in this field.²¹

In that part of the twentieth century which is already past, remarkable progress has been made in providing musical facilities for youth by recognizing music as an academic subject, by early and vital training in the grades, by the development of group activities in music as a popular extra-curricular activity, by motivation of training by public performances and contests, and by the popularization of music through the phonograph and the radio.

Within the last forty years, music for youth has been discovered. Until about the beginning of the present century, young people in schools were given little opportunity for participation in musical activities. Private music lessons were available for those who could pay for them, but these were often sheer drudgery enforced by parents. Few people had ever heard good music, and it certainly had no significance as a part of the total program of public education.²² Now, however, all that has changed; and in almost every high school in the country, any pupil who is musically inclined may get training to his heart's desire in various forms of vocal and instrumental endeavors.

²¹Ibid., pp. 140-141.

²²Carl E. Seashore, "Youth and Music," School Review, XLVIII (April, 1940), 273.

The most striking characteristic of public school music as it has developed in the twentieth century is its many-sidedness. No longer is it exclusively vocal, as in the past, though singing is still the fundamental musical activity.²³ Present-day music education is based upon the democratic principle that all men possess an equal right to the enjoyment of music, and hence all young people possess an equal right to training in music, if their interests lie in that direction. This particular point of view is a logical corollary of the significant democratic concept of personality that has come to characterize all modern education.²⁴

The development of music in the high school as a serious study has occurred almost wholly since 1900, and chiefly within the last quarter of a century. However, the foundations for this development were laid in the last decade of the nineteenth century, when the results of sight-reading in the grades began to be reflected in the ability of high schools to produce standard choral works with a high degree of success. Orchestras and bands became prominent and popular; and then came music appreciation as a definite type of study upon which particular emphasis was placed. Music appreciation was conceived as an avenue leading to the greatest

²³Birge, p. 159.

²⁴Leo Kestenberq, "Music Education Goes Its Own Way," The Musical Quarterly, XXV (October, 1939), 442.

possible understanding and enjoyment of the total field of music.²⁵

When music was first accepted as a school subject, the schools were forced to recruit their music teachers from the professional or semi-professional musicians of the community, or else delegate the teaching of the music classes to some musically-inclined teacher of some other subject. Almost no special requirements existed relative to the pedagogical preparation of the music teacher, and the subject often was considered as an isolated unit of an extra-curricular nature. Often it functioned almost solely as an agent for heightening the emotional reactions at athletic contests, for filling in monotonous interludes in dramas and other types of school entertainments, and for providing an activity that would relieve the congestion of overcrowded study halls.

Unfortunately, these attitudes have not been altogether discarded, but most educators have come to recognize the values of music as an academic subject. Consequently, school officials are increasingly demanding that the music teachers be able to justify their subject educationally and be prepared to teach it properly. Colleges, in formulating their teacher-training courses, have responded to these requirements. No longer is the prospective music teacher given the old conservatory type of preparation, consisting almost wholly of specialization in one medium of musical performance, with

²⁵Birge, pp. 161-163.

possibly some supplementary work in musical theory. Instead, colleges are offering and requiring, in almost all cases, four years of intensive preparation in musical, academic, and pedagogical subjects, usually accompanied with an opportunity for additional study in graduate work. With this thorough preparation, the teacher of music is able to take her place in the public school faculty with the same status and the same professional obligations as any other teacher.²⁶

In the past, in music education and accomplishment,

The achievement of higher goals was impeded by limited materials and the employment in the schools of private teachers with insufficient knowledge of group instruction and little understanding of educational psychology and philosophy. Schoolmasters lacked the broad cultural background now found among teachers as a result of the raised requirements for teacher certification. The struggle for music's place in the sun often demanded expediency at the cost of basic aims. One by one these deterrents have been reduced or eliminated, causing standards of instruction to improve until we now stand upon the threshold of an era in music education unparalleled in world history.²⁷

Aims of Music Education

Before proceeding into a discussion, specifically, of the aims of music education in the public schools of the United States, it perhaps would be advisable to recall to mind the principal aims of education in general, as they are understood and endorsed by modern educators. The broad fundamental aims of education have been stated as follows:

²⁶William S. Larson, "Some Recent Trends in Music Education," Education, LVI (May, 1936), 513.

²⁷Lenel Shuck, "Music Education Comes of Age," Education, LIX (May, 1939), 522.

We are all prepared to accept public education as the preparation of the rising generation to carry on the life of the race. We are also told that the new education aims to bring the individual into the realization and use of all his powers, develop his character, and prepare him for use in the community. But at the same time, the fundamental aim of public tax-supported education must be, and can be, only better citizenship; not what is often meant by the term, but in its broadest, simplest meaning -- the making of better citizens -- better physically, because an unhealthy or inept citizen is a liability; better mentally, because ignorance is the greatest foe of democracy; better spiritually, because therein lies our only hope against an encroaching materialism; better culturally, so that our product may have resources within himself for recreation, or (to use a much abused term), for a worthy use of his leisure time; better socially, so that he may recognize the obligation of the Golden Rule upon which true democracy rests; better vocationally, so that he may be self-supporting and a contributor to the economic development of his community.²⁸

Music, to some degree, fulfills all of these objectives. Administrators are becoming increasingly aware of the manner in which music meets these general aims of education, and are frequently expressing their convictions in their public utterances. Superintendents and principals often mention the manner in which music courses assist in developing and maintaining discipline, concentration, and cooperation.²⁹

The task and challenge of modern education are to provide for the enrichment of life, to make it possible for the individual to attain complete and abundant living, to insure continued mental growth, and to develop the individual's

²⁸Charles M. Dennis, "Music in a Machine Age," California Journal of Secondary Education, XI (March, 1936), 171.

²⁹Ibid., pp. 171-172.

potential capacities to their fullest extent. Various subjects, including music, are justified as sectors of the total curriculum by the manner in which they contribute to certain standards such as "physical well-being, civic, social, and moral aims, recreational and aesthetic participation and appreciation, and vocational preparation."³⁰

Music in the schools should be recognized as an important part of the education of all students, not because it is a "mind trainer," not because it is a socializing force, not because it trains for worthy use of leisure time, not because it enhances citizenship. It may help to bring about all of these results, all valuable, all desirable. But chiefly should it be a part and an important part of the school life because we know today that the feeding of the emotional side of life is imperative and that music is primarily a result of a feeling within, emotion, expressed in a pattern. For years the feeling side in development was neglected or left out completely. No longer can education go on without recognizing as having a vital place in a well-rounded development, the arts and music especially. Were a single statement with regard to the objective of music in the schools to be made, the one from the Fourth Year Book of the Department of Superintendence might suffice -- to "develop appreciation -- which is a pleasurable response to musical beauty."³¹

When music was first introduced into American schools, teachers of the subject believed that their primary objective was to teach the technique of the art. If a student was capable of singing a fairly difficult song at sight, he was held up as a model. Today music goes beyond such routine

³⁰William S. Larson, "Creative Music Teaching," Music Educators Journal, XXVII (September, 1940), 19.

³¹Alice E. Bevins, "What Materials Shall be Used to Teach Music in Elementary Schools?" Education, LVI (May, 1936), 536.

skills, although their acquisition is still held to be necessary. Now children lose themselves in new and vital experiences of singing and playing music that they enjoy. This alone is one of the principal aims of music education as an art of expression. "We employ music through integration projects to enrich and express, through emotional values, the deeper meaning and significance of all types of learning."³²

Music in the schools serves a dual function: (1) it has a place in its own right as an art, as something beautiful and worth knowing, as an integral part of the social and cultural life of all peoples of the present-day world; and (2) it has a place also because of its intimate relationship to other fields of learning, because it is potentially capable of making distinct and valuable contributions to many units of work in which literature, art, and social studies unite in the development of some special and worthwhile interest.³³

In American schools the aims of music education range from the routine accomplishment of a certain amount of singing and the acquisition of a type of music-reading technique in the elementary schools to the production, usually in secondary schools, of contest-winning bands, orchestras, and

³²George L. Lindsay, "Music Educators Constantly Progressing," The Etude, LVIII (April, 1940), 222.

³³Mary Elizabeth Ireland, "The Dual Function of Music in Education," California Journal of Secondary Education, XI (October, 1936), 347.

choruses. Whatever may be the objective, the techniques and efficiency of the music program are too often handicapped by efforts to teach all children the same things in the same way. Differences in talent are usually disregarded, especially in the elementary school. However, in secondary schools chiefly, the current practice of making musical studies elective with the pupils tends, to some extent, to nullify this disregard of musical interest and ability; although even among those who are sufficiently interested in the subject to elect to study music, a more general recognition of individual differences is still needed, with its accompanying variations in subject matter and methods of teaching.³⁴

All music work carried on at any grade level should emphasize enjoyment. The music lesson that is not fun is not worthwhile. The performance of beautiful music in a beautiful way is as soul-satisfying as any other experience. Anything soul-satisfying is truly enjoyable.

The teacher should assist the children to realize and appreciate a need for skills in music. Of course, the development of skills for their own sake is virtually useless, but any group of children can be enabled to understand that musical skills open up to them a whole world of music that otherwise would be beyond their abilities to comprehend. A high standard of values regarding techniques, interpretation,

³⁴Larson, "Some Recent Trends in Music Education," Education, LVI (May, 1936), 514.

and materials of music should also be developed in the music class.³⁵

The aims of public school music, although they have undergone many changes from time to time, have always been in the direction of the attainment of values more and more clearly musical in nature. In the introductory period of music education, the aim was to have every child learn to sing, and the primary values considered were those of recreation following mental fatigue from other studies. Later, the aim was altered until it became an effort to have every child to learn to read music, because this ability is the key to an understanding of the treasures of the world of music. This value, clearly, had more to do with the child's future than with his present interests.³⁶

The inception and development of the child-study movement was largely responsible for defining the present aim of school music -- "that every child shall appreciate and take pleasure in music, not in a vague and indefinite future, but here and now."³⁷

No longer is music branded as a medium for the supremely talented, or as a toy for the physically weak or the mentally deficient. At last it is being permitted to assume its rightful place in the curriculum as the friend and benefactor of all classes and personalities. It is coming into its own

³⁵John W. Beattie, "Theory and Practice," Music Educators Journal, XXV (September, 1938), 24.

³⁶Birge, p. 159.

³⁷Ibid.

as an agent of intellectual achievement as well as of cultural advancement. It is coming to be recognized as a practical study, no longer being regarded as another "frill" of the educational system. Many of the qualities and techniques that make for success in music are the same as those in other fields.³⁸

According to one view, the primary and controlling aim of a program of music education in the school is the effective and intelligent promotion of musical amateurism. It is the hope of the advocates of this aim, of course, that music students in the school courses will be so educated and inspired that, when they have completed their schooling, they will continue to find in their lives a place for musical activities of the highest possible type. To accomplish this aim, the school must offer its students varied and diversified musical activities and projects. Since one learns to enjoy and use music simply by using and experiencing it in all possible ways, the school must provide ample opportunities for musical participation, organized under competent educational guidance.³⁹

In the past, the teaching of music reading was the chief concern of the music teacher. An opposite view was expressed by Samuel W. Cole at the Boston meeting of the National Education Association in 1903:

³⁸Winifred Bush, "Music Educates Us," Nation's Schools, XX (October, 1937), 43.

³⁹James L. Mursell, "A Balanced Curriculum in Music Education," Education, LVI (May, 1936), 521.

The real purpose of teaching music in the public schools is not to make expert sight singers nor individual soloists. I speak from experience. I have done all these things and I can do them again; but I have learned that, if they become an end and not a means, they hinder rather than help, because they represent only the abilities of the few. A much nobler, grander, more inspiring privilege is yours and mine: to get the great mass to singing and to make them love it.⁴⁰

The new music education was faced with the task of blending these two views, and of proving that children could learn to read music without destroying their love for singing, and that properly directed singing of songs would help rather than hinder the development of ability in music reading.

A well integrated personality is the best defense one can have against the ravages of fate. No finer objective than the underlying of this exists in education. Here again music makes an important offering. It is primarily a subjective experience, providing an emotional outlet. It may allow one to express affection, patriotism, loyalty; to be heroic, tender, noble, all under conditions where the direct avowal of such feelings would be ridiculed.⁴¹

Music, like all the arts, is social in origin, and it must remain social in function if it is to have any real vitality. In its origin it was a form of social expression created for the use of the tribe. It was not something created to move the tribe or inspire them. It was to be used by them. There was a need for music in ritual, in rites of magic; and there music was made because there was a real need for it. . . . Let us no longer think of music as entertainment. Let us no longer regard it as a cathartic or as a tonic. Let us realize that it has a social function which is as old as music is.⁴²

Music is an agent of education for the emotions, and

⁴⁰Quoted in Birge, pp. 157-158.

⁴¹Dennis, p. 173.

⁴²Donald Pond, "Music as a Social Function in the Child's World," Progressive Education, XIII (March, 1935), 177.

assists in developing from emotionally maladjusted personalities, beings who possess independent, well-rounded, stable characters, always able to find worthwhile outlets in worthy leisure hobbies and vocational activities.⁴³

Education looks to the music teacher and to the music program to function in the realm of emotional and spiritual values. If music is adequately to perform its most worthwhile function, both in school and in society, music educators must cease to place primary emphasis upon techniques and excellence of performance. Instead, they and the music program which they direct must be fundamentally concerned with those factors in music education which pertain to "self-realization, human relationships, and civic responsibilities."⁴⁴

The fact is widely recognized that musical instruction in the past was aimed chiefly at making performers, that emphasis in music was placed upon the acquisition of knowledge from without, and that creative impulse was almost never encouraged. Now, under the sway of modern philosophy and techniques, instruction has become largely a liberation of music from within by means of delightful work and play. In much the same way as a young plant emerges from a seed, musical feeling and knowledge are developed by a process of growth from within. "In short, the child's emotional nature and

⁴³Bush, p. 44.

⁴⁴Fowler Smith, "Music Education Arises to the Call," Music Educators Journal, XXVII (March-April, 1941), 9.

sense of music precede, dominate, and preside over the later skill and technique on instruments."⁴⁵

The capable teacher who is a true student of her music pupils realizes the significance of individual differences in musical talent and will do all she can to allow for the proper development, individually, of these inherent aptitudes. This endeavor will be in accordance with modern educational beliefs; and progressive effort in this direction will strengthen the position of music as one of the most important subjects in the public-school curriculum.⁴⁶

Music teachers should not expect to inspire a large crop of composers, or even of expert performers, any more than English teachers hope to produce many writers of prose and poetry. However, music teachers should encourage musical composition, or the creative project in music. Some students will be eager to try their hand at composing musical settings for poems, or in producing little pieces for instrumental performance. When one has heard his music performed, he is likely to evolve a new appreciation of music as a normal and natural agency for expression; no longer is it a series of troublesome note problems or of technical obstacles. He is likely to become a far more intelligent listener and a more

⁴⁵Elizabeth Newman, "A Rational Approach to Music Teaching," in Creative Expression, edited by Gertrude Hartman and Ann Shumaker, p. 86.

⁴⁶Larson, "Some Recent Trends in Music Education," Education, LVI (May, 1936), 520.

sensitive performer. Most important of all, the creative project can readily arouse an enthusiasm for the use and appreciation of music which persists long after graduation from school, and even throughout life.⁴⁷

Admittedly, there are values in the preparation of musical materials for public performance, but performance and pre-performance activities should not constitute the primary aims of music education. Instead, the value of a music program is determined by the benefits that come to the individual pupil when he is given musical experiences in the school that are in keeping with his latent abilities. To all these possible benefits, the music teacher should direct her attention in planning the activities of the music department. In the past, more emphasis was placed, perhaps unwittingly, upon teaching the subject than upon teaching the child.⁴⁸

Communal melody writing, in which the entire class or a group cooperates in working out a simple melody, is interesting and beneficial in that it familiarizes the children with the manner in which good tunes are formed and set down. Valuable musical experiences come from the activities of making suggestions and criticisms, and accepting and discarding phrases and constructions.⁴⁹

⁴⁷Mursell, p. 523.

⁴⁸Larson, "Some Recent Trends in Music Education," Education, LVI (May, 1936), 519.

⁴⁹Thomas Whitney Surette, "A General View of Music Education for Children," in Creative Expression, edited by Gertrude Hartman and Ann Shumaker, p. 69.

"A wide, directed experience in listening, and an ability to listen well, is a most important item in the equipment of the musical amateur."⁵⁰ In this connection, one of the chief purposes of music education in the school is to bring the learner into close and intimate contact with the musical wealth of the world.

Correlation of music with the more practical studies in the curriculum has its rewards. Not only does it bring about a definite expansion of outlook and experience, but it gives life a new vitalized and purposeful aspect. Understanding the play and cultural life and activity of the world in all its moods surely must, through an establishment of a new tolerance and sympathy, contribute to a more neighborly attitude at home and a more open-minded one abroad.⁵¹

Personality Needs of High School Students

As early as Pestalozzi, educators began to evolve the concept that "education consists in the unfolding of all the aspects of every human personality, including the emotions and the will." This thought opened the way for the widespread educational reforms that were later to find their culmination in art education.⁵²

The process of building up and maintaining the private world in which the individual lives is a significant phase of personality which comes to the fore in early childhood and persists as the individual's way of life. The child's outlook on life is highly important, because soon it will become

⁵⁰Mursell, p. 521.

⁵¹Bush, p. 44.

⁵²Kestenberg, pp. 443-444.

the adult's outlook. The viewpoints of the child are often preserved in manhood.

Indeed, it is not unwarranted to say that in educating the child, especially in socializing him, we are creating the society of tomorrow which will be the patterned conduct and feelings of those individuals whose personalities we are helping to develop.⁵³

In earliest infancy, the child begins to feel that the world is friendly and helpful, or else hostile and destructive, and he sets about to build up his private world in keeping with his concepts of the relationship that the world bears to him. As he grows older, the child encounters new experiences, which he endeavors to assimilate into the framework of his own idiosyncratic private world. Desperately, he attempts to keep his private world from deviating too far from the cultural world of society. Thus he goes through his school career, preoccupied with serious personality problems that, for the most part, are ignored and overlooked by even the most modern of educational programs.

Every social gain we now boast of . . . has come from emancipation of individuals from tradition, from superstition, from slavery and serfdom, and other coercive limitations. Today we can, with confidence, assert that the social orders we now vainly hope for can be achieved by an educational process which recognizes and cherishes the individual who, because he is not coerced and distorted, will and can accept socialization.⁵⁴

The fundamental needs of the child who comes to school

⁵³Lawrence K. Frank, "The Child's Outlook on the World," Progressive Education, XV (October, 1938), 456.

⁵⁴Ibid., p. 457.

are the same needs which are constantly experienced by society, which is made up of all the little boys and girls who, whatever their chronological age, are still preoccupied with their family experiences and with their school life that, in so many instances, unfortunately aggravates the family's damage to personality. The child's needs and the child's outlook on the world, then, may be recognized as the key to social welfare for the whole of society.⁵⁵

Children, even those of high school level, crave order, regularity, and security in settled patterns and relationships. They cannot willingly accept chaos and anarchy, but they do want and need a kindly, friendly adult guidance to help them, in their own way, to become adjusted to culture, and to become members of the social group with a feeling that they belong and have found their proper places. Children hope that the school will give them these satisfactions; and often they are apprehensive because the home may have dealt with them and with their needs in an unfair or inadequate manner.⁵⁶

It cannot be forgotten that the personality of an individual is organized in childhood and youth from . . . experiences which give each child persistent affective reactions toward the world which operate throughout his whole life as dynamic patterns of perceiving, acting, and feeling. Indeed, if the concept of personality is to have an educational significance, it must be seen not as a static essence or as a bundle of discrete traits or factors, existing in a mysterious kind of organization, but as . . . a dynamic way of "structuralizing

⁵⁵Ibid., p. 458.

⁵⁶Ibid., p. 457.

the life space," . . . of only seeing and hearing and believing what is meaningful to the individual and reacting to it in idiomatic, highly personal patterns and always with feelings.⁵⁷

One of the child's greatest needs is culture "to order experience, regulate conduct, and give meaning and significance to life."⁵⁸ It is well-nigh impossible for the individual to create order and meaning for himself. He must have socialization if he is to become a participating member of the social groups which touch him in his pattern of life, if he is to be able to live harmoniously and understandingly in the cultural world. It is readily seen that the school has a social responsibility in helping to socialize the children in order that they may become adjusted to the world into which they are rapidly growing and assuming their places of responsibility. The school, however, must not attempt mass socialization projects, for great harm is done to the personality if the school ceases to regard the individual as inviolable. The school must meet personality needs on the basis of the individual child and not on that of the group.

But, fundamentally, there is little difference in the basic needs of children who want to be protected and approved, liked, if not loved, and made to feel they are of some importance to others while undergoing the always difficult process of socialization. If teachers can see in the child the same needs that they feel, and will try to meet those needs by spontaneous feelings and understanding treatment, such as they crave for themselves, the educational process might become the most powerful agency for achieving social order and mental health.⁵⁹

⁵⁷Ibid., p. 456.

⁵⁸Ibid., p. 458.

⁵⁹Ibid.

Influence of Music upon Personality

The educational system confidently looks to music teachers and to the music program to function in the realm of the emotional and spiritual values. Hence the music program must be fundamentally concerned with those factors which, in music education, pertain to "self-realization, human relationships, and civic responsibilities."⁶⁰ The implications for personality are distinct in this connection, for self-realization represents the highest attainment of the human personality, while efficiency in human relationships and in the performance of civic responsibilities is a valuable attribute of the well-rounded personality. These items are the chief points contained in the personality test used in this study, and will be dealt with more in detail in the following chapter.

All attempts at improving the curriculum of the public school should be made with the direct objective of producing individuals who are more effectively integrated in their school and life experiences, and who function more intelligently and efficiently in all of their interactions in the culture in which they live and work. The failure of the school to give adequate consideration to the arts and esthetics seems to be resulting in the development of personalities who are not so efficient, adjusted, and well-rounded as they

⁶⁰Smith, p. 9.

might be. Throughout the American school set-up it is possible to discover numerous instances in which the arts and esthetics are more or less pushed aside while primary emphasis is given to other types of educational experiences which are less fruitful in developing the intelligently functioning learner and the adequately proportioned personality.⁶¹

Since the particular function of the arts is to convey beauty, they exert a refining and guiding influence upon the inner life of man. Music, because of its direct and powerful appeal to the emotions and to the spiritual percepts, is perhaps more significant than the other arts with respect to the inner influence, potent and universal, that it brings to bear upon the human life. It

refines the sensibilities, deepens reverence, engenders faith in the good and the true, intensifies loyalty and patriotism, inspires courage, creates good-fellowship, affords emotional release and spiritual freedom, counteracts sordidness, soothes, inspires, refreshes.⁶²

Hence, a school music program, when properly conceived, can become a vital factor in the development of character and personality, while at the same time providing opportunity for the students' growth in appreciation of the esthetics.

The arts represent the communicative or expressive aspect of experience. They refer to all processes and all media in which and through which individuals communicate their ideas, beliefs, or feelings to others.

⁶¹L. Thomas Hopkins, "The Arts and Aesthetics," Teachers College Record, XXXIX (January, 1938), 328.

⁶²Ernest G. Hesser, "The Music Program in the Public Schools," Music Educators Journal, XXVII (December, 1940), 27.

The aesthetics involve the feeling or emotional aspect of experience. They refer to all feelings or emotions engendered in the individual through the process of communicating to others in any media and to the feelings and emotions which his reception of the communication of others arouses in him. In all normal experiencing, these two processes go on simultaneously. Neither can be segregated from the other in fact. While it is easy to see that feeling is a part of the expressive aspect of the experience, it is equally true that communication is present in some degree and in some form in all the aesthetic aspects.⁶³

A sound and adequate school program should help the child to utilize as great a variety of media of expression as possible. Such an objective promotes not only happier and more meaningful daily living, but makes for greater feelings of security in society throughout life, for continuing happiness, and for a wiser and more closely integrated self at all times after formal education has ceased. To achieve this goal in an adequate manner would necessitate the readjustment of the educational program so as to eliminate or revise many of the traditional subjects, but the outcomes in the prevention of human waste and in the increased worth of the human personality would be well worth the cost.⁶⁴

In summary of the relationship that exists, or that should exist, between music education in the public school and the personality of the students, the following thoughts are pertinent and revealing:

. . . it should be emphasized that the teaching of music must be broadened to include guidance. The

⁶³Hopkins, p. 329.

⁶⁴Ibid., p. 332.

music department does not exist merely to prepare for concerts, operettas, and contests, or to serve as a general entertainment bureau for the school and the community. All of these worthy activities are functions of the music department, but guidance must be included. When judging the work done by music teachers and the organizations they direct, we must remember that it isn't the music that the child produces that counts half as much as what is music doing for the child!⁶⁵

⁶⁵William Raymond Sur, "The Music Teacher and Guidance," Music Educators Journal, XXV (May, 1939), 17.

CHAPTER III

PERSONALITY NEEDS OF MUSIC STUDENTS OF DENTON SENIOR HIGH SCHOOL

In the present chapter the writer proposes to set forth the results of the submission of the California Test of Personality to her first- and second-year music students in the Denton Senior High School. The data are to be presented in tables and analyzed for the purpose of determining, as far as possible, the personality weaknesses and needs of these students. The personality test referred to is divided into two major sections dealing, respectively, with self-adjustment and social adjustment. Each of these major divisions consists, in turn, of six component sections. That is, six separate tests deal with self-reliance, sense of personal worth, sense of personal freedom, feeling of belonging, freedom from withdrawing tendencies, and freedom from nervous symptoms as phases of self-adjustment; and six other tests are based upon social standards, social skills, freedom from anti-social tendencies, family relations, school relations, and community relations as phases of social adjustment. The data pertaining to personality needs as

indicated by the self-adjustment tests will be presented first for the first-year and second-year students, followed by those included in the social-adjustment series.

Intelligence Quotients and Self-Adjustment

The intelligence quotients of the students have served as a convenient basis upon which to classify and number them for the present study. Hence, in Tables 1 and 2, the student with the highest intelligence quotient appears as number one, and he who had the second highest is number two, and so on, in descending order for both first- and second-year music students. Throughout this thesis, where pupil numbers appear in tables, the numbers are those assigned on the basis of intelligence quotients, and are the same as those appearing in Tables 1 and 2. For greater convenience in making comparisons, quartiles have been distinguished, based upon intelligence scores. In each instance, the fourth quartile contains those students with the highest intelligence quotients; the third quartile, those with the second highest; the second quartile, those with the third highest; and the first quartile, those with the lowest intelligence quotients.

Table 1 presents the scores in self-adjustment made by the thirty first-year music students, arranged in quartiles on the basis of descending intelligence quotients. For convenience, the six phases of the self-adjustment test have

TABLE 1

PERSONALITY SCORES IN SELF-ADJUSTMENT MADE BY FIRST-YEAR
MUSIC STUDENTS, ARRANGED IN QUARTILES ON THE BASIS
OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Phases of the Self-Adjustment Test*						Total Points
		A	B	C	D	E	F	
1...	109	11	14	13	13	14	11	76
2...	106	10	12	13	12	9	11	67
3...	106	10	12	13	13	11	8	67
4...	106	10	10	10	11	5	8	54
5...	104	7	11	13	11	9	9	60
6...	95	5	12	14	15	11	13	70
7...	95	4	10	13	12	11	5	55
8...	95	8	10	13	11	6	7	55
9...	95	9	11	6	8	7	8	49
10...	94	11	13	14	15	12	15	80
11...	90	7	10	7	12	7	7	50
12...	89	9	14	11	14	13	10	71
13...	88	12	9	14	14	10	8	67
14...	84	10	12	15	14	8	11	70
15...	83	10	14	14	15	10	8	71
16...	81	6	9	14	13	8	10	60
17...	81	9	11	13	12	12	6	63
18...	81	3	15	11	11	6	6	52
19...	81	5	8	14	13	7	8	55
20...	81	3	8	13	10	6	3	43
21...	81	2	9	12	9	4	5	41
22...	81	12	12	12	13	10	6	65
23...	81	8	11	13	13	8	9	62
24...	81	4	10	13	14	5	6	52
25...	81	6	6	9	9	3	6	39
26...	78	6	11	12	8	6	9	52
27...	75	13	13	14	12	8	10	70
28...	75	8	11	13	13	8	9	62
29...	75	3	12	12	13	6	11	57
30...	75	5	7	8	10	7	9	46

Averages on the Basis of Quartiles

4th..	102.0	8.1	10.1	11.5	12.2	9.5	9.0	63.0
3rd..	89.0	9.7	11.8	11.5	13.1	9.5	9.5	65.4
2nd..	81.0	5.7	10.2	12.7	11.5	7.5	6.3	54.1
1st..	77.6	6.6	10.1	11.7	12.6	6.0	8.6	55.0

*Phases of test indicated by letters: A, self-reliance; B, sense of personal worth; C, sense of personal freedom; D, feeling of belonging; E, freedom from withdrawing tendencies; F, freedom from nervous symptoms.

been referred to in the columnar headings by means of letters, as is explained in the footnote to the table. The intelligence quotients for this group ranged from 109 downward to seventy-five, and the total points in self-adjustment ranged from eighty for pupil ten downward to thirty-nine for pupil twenty-five. Ninety is a perfect score for the complete test, since each of the six divisions counts fifteen points. Comparatively few perfect scores were made. They appear in the table as follows: one in sense of personal worth, one in sense of personal freedom, three in feeling of belonging, one in freedom from nervous symptoms. No perfect scores were made in self-reliance and freedom from withdrawing tendencies. The fact that more perfect scores were made in feeling of belonging than in any other phase of the test indicates that these pupils had attained a relatively high social adjustment in terms of their individual personalities.

The average scores for all quartiles are above ten points for sense of personal worth, sense of personal freedom, and feeling of belonging; and below ten points in all quartiles for self-reliance, freedom from withdrawing tendencies, and freedom from nervous symptoms. The highest average, 13.1 points, occurs for the third quartile in the case of feeling of belonging, whereas the lowest average, 5.7 points, is found in the second quartile for self-reliance. With all six phases of the self-adjustment test considered,

the averages in points for the quartiles are shown to be as follows: fourth quartile, 63.0; third quartile, 65.4; second quartile, 54.1; and first quartile, 55.0.

It appears from these quartile averages that intelligence did not exert a clearly defined influence upon the self-adjustment qualities of this particular group of first-year music students, since the highest average self-adjustment score is not that for the fourth quartile, nor is the lowest that for the first quartile.

Personality scores in self-adjustment for the second-year music students are arranged in Table 2 in quartiles on the basis of descending intelligence quotients. This table, including the letter abbreviations for columnar headings, is set up exactly as Table 1. The general intelligence level of this group of students is considerably higher than that of the first-year group, the intelligence scores ranging from 110 downward to eighty-one. In this test the perfect score was ninety points. The highest score attained was eighty-seven points in the case of pupil thirteen, and the lowest was twenty-eight in the case of pupil twenty-seven. The highest score is seven points higher and the lowest score is eleven points lower than corresponding scores for the first-year group.

The test on self-reliance was the only one of the six phases of the self-adjustment test on which no perfect scores of fifteen points were made. The number of perfect scores

TABLE 2

PERSONALITY SCORES IN SELF-ADJUSTMENT MADE BY SECOND-YEAR
MUSIC STUDENTS, ARRANGED IN QUARTILES ON THE BASIS
OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Phases of the Self-Adjustment Test*						Total Points
		A	B	C	D	E	F	
1...	110	11	14	15	14	11	14	79
2...	110	7	12	14	4	14	12	63
3...	110	7	14	12	11	8	7	59
4....	110	8	13	14	11	10	7	63
5...	110	6	11	14	8	6	8	53
6...	110	4	11	13	14	12	9	63
7...	109	9	12	14	14	6	9	64
8...	109	7	14	14	8	10	6	59
9...	109	14	15	15	15	11	12	82
10...	106	7	10	13	14	11	11	66
11...	106	9	12	15	11	8	8	63
12...	106	7	14	10	13	8	5	57
13...	106	14	15	14	15	14	15	87
14...	98	8	13	15	15	13	14	78
15...	96	8	12	13	15	7	9	64
16...	95	11	13	14	14	12	10	74
17...	95	3	13	14	15	4	6	55
18...	94	8	14	14	13	8	9	66
19...	94	5	10	11	12	6	4	48
20...	90	8	11	13	13	8	9	62
21...	88	9	14	14	14	15	15	81
22...	88	12	11	14	12	8	10	67
23...	88	8	11	13	13	8	9	62
24...	88	9	13	12	13	9	10	66
25...	85	10	14	14	15	8	8	69
26...	85	8	11	11	12	9	11	62
27...	84	10	4	3	5	4	2	28
28...	81	13	11	11	8	12	11	66
29...	81	8	14	13	13	10	5	63

Averages on the Basis of Quartiles

4th..	109.8	7.4	12.4	13.7	10.8	9.5	9.4	63.4
3rd..	105.7	9.4	13.1	13.7	13.0	10.7	10.1	70.3
2nd..	93.1	7.4	12.4	13.3	13.7	8.5	8.8	64.5
1st..	85.0	9.7	11.1	11.3	11.3	8.5	8.2	60.3

*Phases of test indicated by letters: A, self-reliance; B, sense of personal worth; C, sense of personal freedom; D, feeling of belonging; E, freedom from withdrawing tendencies; F, freedom from nervous symptoms.

made on the other five tests was as follows: sense of personal worth, two; sense of personal freedom, four; feeling of belonging, six; freedom from withdrawing tendencies, one; and freedom from nervous symptoms, two. Fifteen perfect scores were distributed among five of the six phases of the self-adjustment test administered to the second-year music students, where the first-year group made six perfect scores which were distributed among four of the six phases of the test.

As shown plainly by the quartile averages in Table 2, the second-year group, like the first-year group, made higher scores on sense of personal worth, sense of personal freedom, and feeling of belonging than on any of the other phases of the test. The highest average quartile score was 13.7 points, which occurred for the fourth and third quartiles in connection with sense of personal freedom and for the second quartile in the feeling-of-belonging test. Here, as for the first-year students, the lowest average quartile score, 7.4 points, occurred for the second quartile in the self-reliance test and was repeated in the fourth quartile of the same test.

Keeping in mind that ninety points represented a perfect score on this test, one discovers that the highest average score for the group, 70.3 points, was made by the third intelligence quartile. The second quartile had an average score of 64.5 points, which was 1.1 points higher than that of the fourth quartile. The lowest intelligence quartile had

the lowest average quartile score. As was true of the first-year group, no definite relationship is indicated here between intelligence and self-adjustment. Although the lowest average quartile scores coincide with the lowest intelligence quartile, no similar relationship exists between intelligence and self-adjustment in the higher intelligence quartiles. Any relationships that may be intimated are so vague as to make hazardous the drawing of definite conclusions.

Intelligence Quotients and Social Adjustment

Whereas the data resulting from the submission of the self-adjustment phase of the personality test to the first- and second-year music students are shown in Tables 1 and 2, those growing out of the submission of the social-adjustment phase of the test are presented in Tables 3 and 4, for the first-year and second-year students, respectively. In this test, as in the self-adjustment test, a perfect score was ninety points, since each of the six divisions of the test counted fifteen points.

Even a hasty comparison of Tables 1 and 3 reveals that the scores for social adjustment among the first-year students were higher, in the main, than those of the same group for self-adjustment. Despite this fact, however, only five perfect scores of fifteen points are recorded for the first-year group in the social-adjustment test. Four of these perfect scores occur on social standards, and the other appears for family relations.

TABLE 3

PERSONALITY SCORES IN SOCIAL ADJUSTMENT MADE BY FIRST-YEAR
MUSIC STUDENTS, ARRANGED IN QUARTILES ON THE BASIS
OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Phases of Social Adjustment Test*						Total Points
		A	B	C	D	E	F	
1...	109	11	9	12	12	13	8	65
2...	106	15	11	12	14	11	14	77
3...	106	15	12	11	14	13	9	74
4...	106	13	12	9	6	6	7	53
5...	104	14	11	10	10	7	10	62
6...	95	13	12	11	13	10	8	67
7...	95	13	8	8	11	14	11	65
8...	95	10	11	10	9	9	7	56
9...	95	13	11	9	10	8	10	61
10...	94	11	14	14	15	12	11	77
11...	90	12	14	11	10	8	8	63
12...	89	15	13	13	12	8	13	74
13...	88	12	11	10	8	9	13	63
14...	84	13	12	9	13	10	9	66
15...	83	11	10	11	13	12	9	66
16...	81	10	12	7	11	8	10	58
17...	81	13	7	8	9	6	12	55
18...	81	11	13	8	9	10	11	62
19...	81	12	10	7	11	8	10	58
20...	81	13	9	10	10	8	12	62
21...	81	13	10	6	7	12	7	55
22...	81	10	12	10	12	8	10	62
23...	81	12	10	10	11	10	9	62
24...	81	4	12	13	14	5	6	54
25...	81	15	6	11	6	6	7	51
26...	78	13	10	9	10	6	9	47
27...	75	10	12	14	13	12	8	69
28...	75	12	10	10	11	10	9	62
29...	75	13	8	8	7	9	10	55
30...	75	12	8	12	11	7	8	58
Averages on the Basis of Quartiles								
4th..	102.0	13.0	10.7	10.3	11.1	10.3	9.2	64.8
3rd..	89.0	12.4	12.1	11.0	11.5	9.5	10.4	67.1
2nd..	81.0	11.7	10.4	8.0	9.8	8.5	10.3	58.8
1st..	77.6	11.3	9.5	10.8	10.6	8.1	8.2	57.2

*Phases of test indicated by letters: A, social standards; B, social skills; C, freedom from anti-social tendencies; D, family relations; E, school relations; F, community relations.

The highest score appearing on this test, seventy-seven points, was made by two pupils, numbers two and ten, who were members of the fourth and third intelligence quartiles, respectively. The lowest score of forty-seven points was made by pupil twenty-six in the lowest quartile.

A glance at the quartile averages makes it apparent that the first-year music students made their lowest scores on the school-relations and community-relations tests, and their highest scores on social standards, social skills, freedom from anti-social tendencies, and family relations. Thirteen points, the score recorded for the fourth quartile on the social-standards test, is the highest quartile average score made on this test; and eight points, recorded for the second quartile on the freedom-from-anti-social-tendencies test, is the lowest quartile average. No definite relationship is discernible between intelligence and social adjustment, since the highest intelligence quartile did not attain the highest number of points. The lowest intelligence quartile, however, did receive the lowest number of points on this particular test.

Table 4 presents personality scores in social adjustment made by the second-year music students, arranged in quartiles on the basis of descending intelligence quotients. Fifteen perfect scores of fifteen points each are distributed in this table among four of the six tests, as follows: social standards, seven; social skills, one; family relations, five; and

TABLE 4

PERSONALITY SCORES IN SOCIAL ADJUSTMENT MADE BY SECOND-YEAR
MUSIC STUDENTS, ARRANGED IN QUARTILES ON THE BASIS
OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Phases of Social Adjustment Test*						Total Points
		A	B	C	D	E	F	
1...	110	14	12	9	15	12	11	73
2...	110	15	13	14	15	12	11	80
3...	110	14	10	12	9	11	10	66
4...	110	15	8	9	11	12	9	64
5...	110	15	9	12	13	10	9	68
6...	110	13	8	6	12	8	10	57
7...	109	13	8	11	15	12	12	71
8...	109	15	10	10	9	12	7	63
9...	109	13	13	13	9	13	12	73
10...	106	11	12	9	14	13	13	69
11...	106	14	10	13	13	10	11	71
12...	106	13	12	9	8	12	7	51
13...	106	15	15	14	14	11	13	82
14...	98	14	13	12	9	8	14	70
15...	96	15	12	12	13	13	9	74
16...	95	11	11	8	12	8	8	58
17...	95	12	11	10	13	15	11	71
18...	94	14	10	10	15	10	9	68
19...	94	13	12	13	11	11	10	70
20...	90	12	10	10	11	10	9	62
21...	88	13	13	14	15	10	13	78
22...	88	14	9	11	10	10	11	65
23...	88	12	10	10	11	10	9	62
24...	88	12	11	8	12	12	10	67
25...	85	12	12	7	10	10	11	62
26...	85	14	10	11	12	12	6	65
27...	84	15	9	7	3	3	10	47
28...	81	14	11	14	14	15	6	74
29...	81	14	13	12	9	9	10	67
Averages on the Basis of Quartiles								
4th..	109.8	14.1	9.7	10.4	12.8	11.0	10.3	68.4
3rd..	105.7	13.5	12.1	11.4	10.8	11.3	11.0	71.3
2nd..	93.1	12.8	11.3	11.0	12.8	11.0	9.8	68.7
1st..	85.0	13.3	10.6	10.0	10.1	10.1	9.1	63.6

*Phases of test indicated by letters: A, social standards; B, social skills; C, freedom from anti-social tendencies; D, family relations; E, school relations; F, community relations.

school relations, two. No perfect scores were made in freedom from anti-social tendencies and in community relations. The highest score for the test as a whole, eighty-two points, was made by pupil thirteen, and represented a score only eight points below perfect score. The lowest score recorded on this test, forty-seven points, was the record of pupil twenty-seven. The highest score appears in the third intelligence quartile, whereas the lowest score is found in the lowest intelligence quartile.

Quartiles' averages for this test ranged from 14.1 points on the social-standards test for the fourth quartile to 9.1 points on the community-relations test in the case of the first quartile. The total average points for the quartiles do not indicate the presence of any conclusive relationship between intelligence and social adjustment, since the highest social-adjustment scores did not occur in the highest intelligence quartiles, nor did the lowest invariably occur in the lowest intelligence quartiles, although a possible relationship is more pronounced in the case of low scores than in connection with higher ones.

Summary

This chapter has presented data obtained by the writer through the submission of the California Test of Personality to first-year and second-year music students, in an effort to determine personality needs and weaknesses of these

students. In connection with the self-adjustment phase of this test, the findings point to the conclusion that both the first-year and second-year students were weaker in self-reliance, freedom from withdrawing tendencies and freedom from nervous symptoms than they were in sense of personal worth, sense of personal freedom, and feeling of belonging. However, in all cases, considerable need of improvement was implied. In the social-adjustment phase of the test, both groups of music students were comparatively weaker in school relations and community relations than they were in social standards, social skills, freedom from anti-social tendencies, and family relations.

In no instance could a definite relationship between intelligence and the students' adequacy in self-adjustment and in social adjustment be discovered. There seemed to be a tendency for the low-scoring students to have the lower intelligence quotients, but the relationship seemed not to be strong enough to be significant.

CHAPTER IV

MUSICAL TALENTS AND ACCOMPLISHMENTS OF MUSIC STUDENTS OF DENTON SENIOR HIGH SCHOOL

As has been previously stated, the writer submitted to her music students the Kwalwasser-Ruch Test of Musical Accomplishment in an effort to determine the musical ability possessed by these students. This test contains ten subdivisions, the nature of which is indicated in the columnar headings of Tables 5 and 6. In this chapter are presented the results of the submission of this test to the first-year and second-year students in the department of music of the Denton Senior High School.

First-Year Students

Table 5 shows the scores made by the thirty first-year music students on each of the ten phases of the music-accomplishment test referred to, and also the scores made by each individual on the test as a whole, listed in the table under "Total Points." The same plan is followed in this tabulation as was employed in the case of the personality tests; that is, the students and their scores are listed in quartiles on the basis of descending intelligence

quotients. An effort will be made in this chapter to ascertain whether any definite relationship existed between the students' intelligence scores and their aptitude in the various phases of musical accomplishment encompassed by the Kwalwasser-Ruch test.

Five perfect scores of twenty-five points are recorded in the table for the test on knowledge of musical symbols and terms, four of them being placed in the highest intelligence quartile and the fifth, in the second highest quartile. However, there are sixteen scores of twenty points or higher, rather evenly distributed throughout the quartiles. For this particular phase of the test, the quartile averages for the two highest quartiles are consistently descending, from 22.2 points for the highest to 21.4 points for the next highest. This trend is disrupted in the two lower quartiles, for the lowest has a higher average score than the second lowest.

In the test on recognition of syllable names, the perfect score is likewise twenty-five points, although no perfect scores are recorded for this group. There are ten scores, however, of twenty points or above, distributed throughout the quartiles. The highest average quartile score is that for the fourth quartile, 19.0 points, and the second highest score is that of the third quartile, 18.4 points. Here, also, the downward trend is broken in the two lower quartiles, where the lowest has a higher average score than the second lowest.

TABLE 5

SCORES IN VARIOUS PHASES OF MUSICAL ACCOMPLISHMENT MADE
BY FIRST-YEAR MUSIC STUDENTS, ARRANGED IN QUARTILES
ON THE BASIS OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Symbols, Terms	Syllable Names	Pitch Errors	Time Errors	Pitch Names
1...	109	25	18	25	15	20
2...	106	22	18	25	15	20
3...	106	25	20	25	15	20
4...	106	20	21	20	12	15
5...	104	25	18	25	15	20
6...	95	20	18	25	15	20
7...	95	25	19	25	15	20
8...	95	16	20	20	12	20
9...	95	20	21	20	12	15
10...	94	23	18	25	15	20
11...	90	16	18	20	15	20
12...	89	22	18	25	15	20
13...	88	25	18	25	15	20
14...	84	22	18	25	15	20
15...	83	22	18	25	15	20
16...	81	20	18	20	12	20
17...	81	15	18	20	15	20
18...	81	20	21	20	12	15
19...	81	15	20	20	15	10
20...	81	17	10	20	12	19
21...	81	15	20	20	15	20
22...	81	22	18	25	15	20
23...	81	20	17	20	12	19
24...	81	20	21	20	12	15
25...	81	16	18	20	12	20
26...	78	15	20	20	15	10
27...	75	23	18	25	15	20
28...	75	24	21	20	12	15
29...	75	20	15	20	12	19
30...	75	18	17	20	12	15

Averages on the Basis of Quartiles

4th..	102.0	22.2	19.0	23.7	14.2	19.3
3rd..	89.0	21.4	18.4	23.5	14.5	19.2
2nd..	81.0	17.7	17.8	20.7	13.7	17.7
1st..	77.6	19.5	18.3	20.6	12.7	16.6

TABLE 5 -- Continued

Time Sig- natures	Key Sig- natures	Note Values	Rest Values	Melody Rec- ognition	Total Points
16	20	12	15	40	216
20	20	15	15	40	210
20	20	15	15	40	215
15	20	15	12	30	180
16	20	12	15	40	216
20	20	15	15	40	208
16	20	12	15	35	212
20	20	15	15	30	188
15	20	15	12	35	185
20	20	15	15	35	206
20	16	12	12	30	179
20	20	15	15	35	205
16	20	12	15	40	216
20	20	15	15	35	205
20	20	15	15	30	200
20	20	15	15	35	195
20	20	12	12	40	192
15	20	15	12	30	180
10	10	12	12	40	164
10	6	15	15	10	134
20	20	12	12	30	184
20	20	15	15	35	205
10	20	15	15	10	158
15	10	15	12	30	170
20	20	15	15	30	186
10	10	12	12	40	164
20	20	15	15	35	206
15	12	15	12	30	176
10	20	15	15	10	156
15	5	15	12	5	134
Averages on the Basis of Quartiles					
17.8	20.0	13.8	12.7	36.7	205.6
18.7	19.4	14.1	14.1	34.2	199.4
16.4	16.5	13.7	13.2	31.4	179.1
14.3	14.6	14.6	13.5	23.7	168.7

When they were tested on their ability to detect pitch errors in familiar melodies, thirteen of the first-year music students made perfect scores of twenty-five points, and not one of them made a score of lower than twenty points. The average of attainment in this instance was higher than for any other phase of the test. As shown in the table, the quartile averages are consistently descending on the basis of intelligence quotients, ranging from 23.7 points for the highest quartile to 20.6 points for the lowest.

A perfect score of fifteen points was made by eighteen of the thirty students when they took the test on detection of time errors in familiar melodies, and no score was below twelve points. Except for the third quartile, whose average score is slightly higher than that for the fourth, the quartile averages consistently descend on the basis of intelligence.

Nineteen students made perfect scores of twenty points on the test on recognition of pitch names, and no score was below fifteen points. The table shows that only one student in each of the two upper intelligence quartiles failed to make a perfect score. In the quartile averages, the trend is consistently downward, ranging from 19.3 points for the highest quartile to 16.6 points for the lowest.

In the test on knowledge of time signatures, fifteen students made perfect scores of twenty points, and five made scores of as low as ten points. The average for the

third quartile is higher than that for the fourth, but otherwise the quartile averages consistently decline on the basis of intelligence quotients.

No one made a perfect score (thirty points) on the test on knowledge of key signatures, although twenty-three students made scores of twenty points, and others ranged as low as five points. The quartile averages are shown to be consistently downward, ranging from twenty points for the highest quartile to 14.6 points for the lowest.

The test on knowledge of note values has twenty-one perfect scores of fifteen points recorded, and no one made a score of less than twelve points. Interestingly, the lowest intelligence quartile has the highest score average of 14.6 points, and the highest intelligence quartile has next to the lowest quartile average.

Nineteen students made perfect scores of fifteen points on the test dealing with knowledge of rest values, and no one had a score below twelve points. The third intelligence quartile is shown to have the highest average score for the test, 14.1 points, and the highest quartile has the lowest score, 12.7 points.

Perfect scores (fifty points) were made by none of the pupils on the test dealing with recognition of familiar melodies from notation, but nine students made scores of forty points and eight made scores of thirty-five points. The trend in quartile averages is consistently downward,

ranging from 36.7 points for the highest quartile to 23.7 points for the lowest quartile.

On the musical-accomplishment test as a whole, including the ten separate phases that have been discussed individually, it was possible for a student to make a total of 240 points. The nearest approach to perfection was a score of 216 points, which was made by two students in the highest intelligence quartile and by one student in the third quartile. From this score the range was downward to a low score of 134 points, which was made by one student in each of the two lower quartiles. Despite fluctuations and disruptions of definite trends in the individual tests, the quartile averages for the test as a whole indicate clear relationships between intelligence quotients and the scores made on this test. The trend is pronounced, in keeping with intelligence ratings. The average total scores on the test range as follows for the fourth, third, second, and first quartiles, respectively: 205.6, 199.4, 179.1, and 168.7. Musical accomplishment seems, then, to be dependent to a considerable extent upon intelligence.

Second-Year Students

A similar analysis will now be undertaken for the students who were in their second year of music study at the time the musical-accomplishment test was administered.

Table 6 shows the results of the test with this group, scores

being listed according to the descending intelligence quotients of the students.

In connection with the test on knowledge of musical symbols and terms, eighteen students made perfect scores of twenty-five points, and only one student in the lowest quartile made a score below twenty points. Only two students in the two central quartiles failed to make perfect scores. The trend in quartile averages is consistently downward, ranging from 24.5 points to 21.6 points, with the two central quartiles each having average scores of 24.2 points.

The perfect score of twenty-five points was made by only one student who took the test on recognition of syllable names, although the lowest score recorded for the test was eighteen points. Members of the highest intelligence quartile had an average score of 22.4 points, and the trend for the other quartiles was consistently downward.

A hitherto unprecedented record of twenty-seven students made perfect scores of twenty-five points on the test dealing with the detection of pitch errors in familiar melodies. Every member of the three highest quartiles made a perfect score, and only two students in the lowest quartile failed to do so. As a consequence, the quartile averages for the three highest quartiles amount to a perfect score of twenty-five points, and the average score for the lowest quartile is 23.7 points.

TABLE 6

SCORES IN VARIOUS PHASES OF MUSICAL ACCOMPLISHMENT MADE
BY SECOND-YEAR MUSIC STUDENTS, ARRANGED IN QUARTILES
ON THE BASIS OF DESCENDING INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Symbols, Terms	Syllable Names	Pitch Errors	Time Errors	Pitch Names
1...	110	25	23	25	15	20
2...	110	25	20	25	15	20
3...	110	24	22	25	15	19
4...	110	24	23	25	15	20
5...	110	25	24	25	15	20
6...	110	24	23	25	15	20
7...	109	25	22	25	15	20
8...	109	25	25	25	15	20
9...	109	25	18	25	15	20
10...	106	25	21	25	15	20
11...	106	25	20	25	15	20
12...	106	25	19	25	15	20
13...	106	25	18	25	15	20
14...	98	20	18	25	15	20
15...	96	20	18	25	15	20
16...	95	25	20	25	15	20
17...	95	25	23	25	15	20
18...	94	25	19	25	15	20
19...	94	25	21	25	15	20
20...	90	25	19	25	15	20
21...	88	25	18	25	15	20
22...	88	23	20	25	15	20
23...	88	20	21	20	12	15
24...	88	25	21	25	15	20
25...	85	25	19	25	15	20
26...	85	23	20	25	15	20
27...	84	15	18	20	15	20
28...	81	22	18	25	15	20
29...	81	20	18	25	15	20
Averages on the Basis of Quartiles						
4th..	109.8	24.5	22.4	25.0	15.0	19.8
3rd..	105.7	24.2	19.8	25.0	15.0	20.0
2nd..	93.1	24.2	19.7	25.0	15.0	20.0
1st..	85.0	21.6	19.3	23.7	14.6	19.3

TABLE 6 -- Continued

Time Sig- natures	Key Sig- natures	Note Values	Rest Values	Melody Rec- ognition	Total Points
18	30	12	15	50	223
18	30	12	15	50	220
16	30	15	15	50	221
18	30	12	15	50	222
18	30	12	15	50	224
18	30	12	15	46	219
16	20	12	15	40	220
18	30	12	15	50	225
16	30	15	15	50	229
16	20	12	15	40	219
16	20	12	15	45	223
16	20	12	15	40	217
16	20	15	15	50	219
20	20	15	15	35	203
20	20	15	15	35	203
16	22	12	15	40	220
18	26	12	15	50	219
16	20	12	15	45	222
16	20	12	15	40	219
16	30	12	15	40	227
16	20	12	15	40	216
20	20	15	15	40	213
15	20	15	12	35	185
16	30	12	15	40	219
16	20	12	15	40	217
20	20	15	15	40	213
20	16	12	12	30	178
20	20	15	15	40	210
20	20	15	15	40	208
Averages on the Basis of Quartiles					
17.4	28.5	12.4	15.0	48.0	221.7
16.8	22.8	13.2	15.0	44.2	219.2
16.8	22.5	12.4	15.0	41.4	218.0
18.3	20.7	13.8	14.2	38.1	205.3

An even more commendable record is that of these students on the test dealing with the detection of time errors in familiar melodies, for in this test every student but one in the lowest quartile made a perfect score of fifteen points. Hence the quartile averages for this test were equivalent to perfect scores for the three highest intelligence quartiles, and the average for the lowest quartile was 14.6 points.

With regard to the test dealing with the recognition of pitch names, another commendable record was made by the second-year students, only two of whom failed to make perfect scores of twenty points on this test. One of these appeared in the highest intelligence quartile, whereas the other was a member of the lowest quartile. For this reason, the average scores of the two central quartiles were equivalent to perfect scores, whereas those for the highest and lowest quartiles were 19.8 and 19.3 points, respectively.

Only seven students made perfect scores of twenty points on the test pertaining to knowledge of time signatures. Five of these appear in the lowest intelligence quartile. For this reason, the average score for the lower intelligence quartile was higher than that for any of the other quartiles. The two central quartiles had the same average.

Knowledge of key signatures is the next test to be considered. Here the perfect score was thirty points,

and was attained by ten of the students, six of whom were members of the highest intelligence quartile, two of whom were in the third quartile, and one each of whom were in the two lower quartiles. The quartile average scores for this test are consistently downward on the basis of intelligence quotients, ranging from 28.5 points for the highest quartile to 20.7 points for the lowest.

It was possible to make a score of fifteen points on the test dealing with knowledge of note values, and ten students attained this maximum score. No student had a score of less than twelve points. Five of the ten perfect scores were concentrated in the lowest intelligence quartile, a fact which caused that quartile to have the highest average score of the entire group, 13.8 points. The third quartile had the second highest score, 13.2 points, and the fourth and second quartiles each had average scores of 12.4 points.

The test on knowledge of rest values provided for a perfect score of fifteen points, which was attained by twenty-seven of the twenty-nine students in the group. The two who failed to reach perfection on this test were members of the lowest intelligence quartile. The perfect score of fifteen points was the quartile average for the three highest quartiles, whereas the average for the lowest quartile was 14.2 points.

Nine students made perfect scores of fifty points on the test dealing with the recognition of familiar melodies

from notation. Five of these were grouped in the highest intelligence quartile, three were in the third, and one was in the second. No perfect score was made in the lowest quartile. Throughout all quartiles, sixteen students made scores of forty points or over. For this test, the trend of quartile average scores is definitely in keeping with the intelligence quotients of the students, ranging from 48.0 points for the highest quartile to 38.1 points for the lowest.

As was stated in connection with the analysis of Table 5, the highest possible score on the musical-accomplishment test as a whole was 240 points. The highest score recorded was one of 229 points, occurring in the third intelligence quartile. Twenty-seven of the twenty-nine students had scores above 200; the two who fell below this figure were members of the lowest intelligence quartile. The quartile averages for the total test were 221.7, 219.2, 218.0, and 205.3, respectively, for the fourth, third, second, and first quartiles. Thus it is plainly seen that, for the test as a whole, the ability to make high scores on the musical-accomplishment test was in keeping with intelligence rating.

Summary

A comparison of Tables 5 and 6 reveals that, on the whole, the second-year music students made much higher scores on the musical-accomplishment test than did the first-year

students. In no instance in the first-year group was a quartile average equivalent to the perfect score on any given test; but among the second-year students, eleven instances occurred in which quartile averages were the same as perfect scores.

Among both the first-year and the second-year students, those who possessed the highest intelligence quotients tended to make the highest scores on the test of musical accomplishment.

CHAPTER V

MUSICAL INFORMATION AND APPRECIATION OF MUSIC STUDENTS OF DENTON SENIOR HIGH SCHOOL

Another phase of the investigation carried out by the writer included the submission of the Kwalwasser Test of Music Information and Appreciation to the first-year and second-year music students who participated in this study. The data resulting from the submission of this test are presented and analyzed in the present chapter.

First-Year Students

Following the administration of the test of music information and appreciation, the writer arranged the test scores in accordance with the intelligence rating of the students. In Table 7 these scores are presented for the first-year music students, arranged in quartiles on the basis of descending intelligence quotients. Nine phases of music information and appreciation and encompassed by this test, and the pupils' scores for each phase and for the test as a whole are presented in the table, identified by columnar headings.

In that portion of the test dealing with the classification of artists, only one student, number twenty-seven,

made a perfect score of twenty points. Nine others made scores of fifteen points or more. The lowest score was eight points, made by three students. The presence of the perfect score in the lowest intelligence quartile and of four scores of fifteen points each gives this quartile the highest average score, 13.7 points. The third quartile is second in rank, whereas the fourth and second quartiles follow in third and fourth rank, respectively.

No one made a perfect score of twenty points on the test on the nationality of composers, although twenty-two students made scores of fifteen points or over. The highest quartile average, 16.0 points, was that for the second intelligence quartile. Except for this chance discrepancy, the scores descend in the quartile averages in accordance with intelligence rating.

The test on the composers of famous compositions was likewise productive of no perfect scores, which in this case were thirty points. However, two students in the highest intelligence quartile made scores of twenty-nine points, and twenty-five others throughout the quartiles had scores of twenty points or above. The second intelligence quartile is shown to have the highest score, and with this exception the average scores for the other quartiles descend in keeping with intelligence scores.

In the test on types of works of composers, a high score of ten points was possible. This score was attained by

TABLE 7

SCORES OF FIRST-YEAR MUSIC STUDENTS IN VARIOUS PHASES
OF MUSIC INFORMATION AND APPRECIATION, ARRANGED
IN QUARTILES ON THE BASIS OF DESCENDING
INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Artists	Composers, Nationality	Composers, Works	Types of Works
1...	109	13	15	29	9
2...	106	14	15	29	9
3...	106	12	15	25	10
4...	106	15	15	25	10
5...	104	18	15	25	8
6...	95	13	14	20	10
7...	95	8	17	24	10
8...	95	10	17	24	10
9...	95	10	15	20	10
10...	94	18	14	20	10
11...	90	12	15	25	9
12...	89	12	18	25	10
13...	88	10	17	24	10
14...	84	15	15	25	10
15...	83	15	10	15	10
16...	81	10	17	24	10
17...	81	10	17	24	10
18...	81	8	16	24	10
19...	81	10	15	20	10
20...	81	8	16	24	10
21...	81	12	14	20	8
22...	81	10	17	24	10
23...	81	15	12	20	9
24...	81	10	15	20	10
25...	81	10	15	20	10
26...	78	15	16	20	8
27...	75	20	10	15	10
28...	75	15	10	20	7
29...	75	15	16	20	8
30...	75	10	8	16	8
Averages on the Basis of Quartiles					
4th..	102.0	12.8	15.3	25.1	9.5
3rd..	89.0	13.1	14.8	22.0	9.8
2nd..	81.0	9.7	16.0	22.8	9.7
1st..	77.6	13.7	12.7	18.8	8.7

TABLE 7 -- Continued

Knowledge of History	Tone Production	Orchestral Instruments	Instrumentation	Structure, Form	Total Points
16	8	7	36	4	137
34	7	6	24	40	178
22	7	6	30	28	158
16	8	5	28	20	142
20	8	7	30	10	141
24	8	6	28	24	147
16	6	5	16	8	120
16	6	5	26	18	132
18	7	6	16	10	112
24	10	6	30	42	174
16	8	5	28	20	138
22	7	6	30	28	161
16	6	5	26	18	132
16	8	5	28	20	142
24	10	5	28	30	147
16	6	5	26	18	132
16	6	5	26	8	122
16	6	5	26	8	119
18	7	6	16	10	112
16	6	5	26	8	119
22	6	6	20	20	128
16	6	5	26	18	132
16	8	5	20	10	115
18	7	6	16	10	112
18	7	6	10	16	112
10	8	8	2	10	97
24	10	5	28	30	153
16	7	5	18	8	106
10	8	8	2	10	97
10	8	8	10	2	80
Averages on the Basis of Quartiles					
20.5	7.2	5.8	27.2	19.0	144.3
19.4	8.0	5.4	26.5	24.0	143.7
17.1	6.1	5.2	23.7	12.8	123.4
15.2	7.8	6.3	13.2	12.0	109.0

twenty of the thirty students included in the first-year group. The third quartile has the highest average score, the second quartile has the second highest score, and the fourth and first quartiles follow in descending order. No trend of relationship between intelligence and music information and appreciation is indicated in this instance.

Knowledge of the history of composers and compositions was a test on which it was possible for a student to make a score of fifty points. No one, however, attained to perfection, the nearest approach being a score of thirty-four points made by pupil two in the highest intelligence quartile. Most of the scores were comparatively low, ranging downward to ten points. The average score of members of the highest intelligence quartile was only 20.5 points, and that for the lowest quartile was 15.2 points. The downward trend in quartile average scores was consistently in keeping with intelligence ratings.

Three students made perfect scores of ten points on that phase of the test dealing with tone production on orchestral instruments. The presence of these high scores in the third and first quartiles disrupted the average scores to such an extent that no trend of relationship was perceptible.

No one made a perfect score of ten points on the test pertaining to classification of orchestral instruments, the nearest approach to perfection being scores of eight points, three of which were made by students in the lowest intelligence

quartile. For this reason the lowest quartile has the highest average score. Among the three highest quartiles, however, the trend in averages is downward in accordance with intelligence quotients.

As to general knowledge of instrumentation, no one made a perfect score of fifty points, and the nearest approach to perfection was a score of thirty-six points, made by the student with the highest intelligence quotient. Four other students made scores of thirty points each. On the whole, the scores for this test were low, ranging to two points in two instances. The averages for the quartiles show a definite trend for scores to be in keeping with intelligence.

An even lower standard was attained by these children on the test relating to general knowledge of music structure and form, which provided for a high score of fifty points. One person in the third quartile made a score of forty-two points, whereas another in the highest quartile made a score of forty points. From these highest attainments, the scores ranged downward to two points. A score of twenty-four points is recorded as the average for the third intelligence quartile, and the averages for the other quartiles descend in logical sequence.

Although a definite relationship between intelligence and music information and appreciation is not apparent in all of the individual phases of this test, the total points for the test as a whole comprise an index to the presence of

such a relationship. On this test it was possible to attain a high score of 250 points, but the highest score made was 178, occurring in the case of the pupil possessing the second highest intelligence quotient. The scores ranged downward to eighty points for the student with the lowest intelligence quotient. A definite trend is indicated by a comparison of the quartile averages, which were 144.3, 143.7, 123.4, and 109.0, for the fourth, third, second, and first quartiles, respectively. Among the first-year students, then, those with the highest intelligence quotients tended to make the highest scores on the Kwalwasser Test of Music Information and Appreciation.

Second-Year Students

The aforementioned test of music information and appreciation was submitted to the second-year music students and the results were tabulated in the same manner as were those for the first-year group. These data appear in Table 8.

Two students, one each in the fourth and second intelligence quartiles, made perfect scores on the test on classification of artists; and eight made scores of eighteen points, which were only two points below perfection. No definite relationship is shown between intelligence and the scores recorded, for the highest intelligence quartile did not receive the highest average score, nor did the lowest quartile make the lowest scores.

TABLE 8

SCORES OF SECOND-YEAR MUSIC STUDENTS IN VARIOUS PHASES
OF MUSIC INFORMATION AND APPRECIATION, ARRANGED
IN QUARTILES ON THE BASIS OF DESCENDING
INTELLIGENCE QUOTIENTS

Pupil Number	I. Q.	Artists	Composers, Nationality	Composers, Works	Types of Works
1...	110	18	19	30	10
2...	110	13	13	29	9
3...	110	20	18	30	10
4...	110	16	17	29	9
5...	110	18	14	20	10
6...	110	14	15	21	9
7...	109	16	17	29	9
8...	109	18	14	20	10
9...	109	16	17	29	9
10...	106	16	17	29	9
11...	106	16	17	29	9
12...	106	16	17	29	9
13...	106	16	17	29	9
14...	98	18	14	20	10
15...	96	12	15	25	10
16...	95	13	13	29	9
17...	95	17	16	29	9
18...	94	12	18	25	10
19...	94	20	10	15	10
20...	90	12	15	25	10
21...	88	14	15	21	9
22...	88	13	14	20	10
23...	88	18	15	25	8
24...	88	13	14	20	10
25...	85	18	15	25	8
26...	85	18	15	25	8
27...	84	18	15	25	8
28...	81	13	13	29	9
29...	81	13	13	29	9
Averages on the Basis of Quartiles					
4th..	109.8	16.4	16.1	26.8	9.4
3rd..	105.7	16.5	16.1	26.4	9.1
2nd..	93.1	14.2	14.5	24.1	9.5
1st..	85.0	15.5	14.2	24.7	8.7

TABLE 8 -- Continued

Knowledge of History	Tone Production	Orchestral Instruments	Instrumentation	Structure, Form	Total Points
42	10	9	42	30	208
16	8	7	20	38	153
42	10	9	30	32	201
24	9	9	22	38	173
24	10	6	30	42	174
34	7	6	24	40	178
32	7	8	20	30	168
24	10	6	30	42	174
24	9	9	22	38	173
24	9	9	22	38	173
24	9	9	22	38	173
32	10	9	36	10	168
24	9	2	9	38	173
24	10	6	30	42	174
22	7	6	30	28	158
16	8	7	20	38	153
32	7	8	30	20	168
22	7	6	30	28	161
24	10	5	28	30	153
22	7	6	30	28	158
34	7	6	24	40	178
24	8	6	28	24	147
20	8	7	30	10	141
24	8	6	28	24	147
20	8	7	30	10	141
20	8	7	30	10	141
20	8	7	30	10	141
16	8	7	20	38	153
16	8	7	20	38	153
Averages on the Basis of Quartiles					
30.5	8.7	7.7	26.8	35.7	179.2
25.1	9.4	9.8	24.4	35.1	172.5
24.5	7.5	6.2	27.4	30.2	161.2
20.0	8.0	6.7	27.0	23.0	145.5

No one made a perfect score of twenty points on the nationality of composers, although one student in the highest quartile made a score of nineteen, and one each in the highest and second quartiles made scores of eighteen. One score of ten points in the second quartile is the lowest recorded on this test for this particular group of students. The average scores are the same for the fourth and third quartiles, 16.1 points; and those for the second and first quartiles descend according to intelligence rank.

Two persons in the highest intelligence quartile made perfect scores of thirty points on the test relating to composers of famous compositions. Twelve students lacked only one point each of attaining perfection, and only one student had a score of less than twenty points. The average scores for the quartiles descend with intelligence until the lowest quartile is reached, in which a slight disruption is noted in the otherwise consistent trend.

In the test relating to classification of composers by the types of works they have produced, eleven students attained perfect scores of ten points, and no score was lower than eight points. With the exception of the second quartile, in which four perfect scores were made, the average scores for the quartiles are in keeping with intelligence quotients.

In connection with the test on general knowledge of the history of composers and their compositions, a perfect score

of fifty points was made by no one. The nearest approach to perfection was made by two students in the fourth intelligence quartile with scores of forty-two points. The lowest score was sixteen points, which was made by four students in the fourth, second, and first quartiles. A brief examination of the quartile averages shows that the range is consistently downward in accordance with intelligence quotients, and extends from 30.5 for the highest quartile to 20.0 for the lowest.

When the results of the test on tone production on orchestral instruments were tabulated, it was found that seven of the students made perfect scores of ten points, and no one made a score of less than seven points. The quartile averages indicate the absence of any relationship between intelligence and scorings on tone production.

No one attained to perfection (ten points) in the test on classification of orchestral instruments, although seven students in the two higher quartiles were only one point short of perfection. One student in the third quartile had a score of only two points. Here again no relationship is indicated between intelligence and scores.

As to general knowledge of instrumentation, no one attained a perfect score of fifty points, and the nearest approach to it was a score of forty-two points made by the student with the highest intelligence quotient. Whereas thirteen others made scores of at least thirty points, one

student in the third quartile received a score of only nine points. The average scores for the two lower intelligence quartiles are higher than those for the two higher quartiles. Hence, intelligence seems not to have entered into the scores received by the students on this particular test.

No one received perfect scores of fifty points on the test relating to general knowledge of music structure and form, although five students received scores of forty or above, all of whom were in the three higher quartiles. The quartile averages range from 35.7 for the highest intelligence group to 23.0 for the lowest group, and the trend is consistently downward in keeping with intelligence rank.

Despite many individual digressions from the trend in connection with the various phases of the test, the general tendency is, as shown in Table 8, for the students with the highest intelligence quotients to make the highest scores on the test of music information and appreciation. This fact is clearly brought out by the listing of total points for the test as a whole. A score of 250 points is possible on this test, but 208, made by the student with the highest intelligence quotient, was the highest score made. One other score above 200 is recorded for a student in the highest intelligence quartile. The lowest total score made on the test was 153, recorded for one student in the fourth quartile, for two students in the second quartile, and for two in the first quartile. The quartile averages of total

points are 179.2, 172.5, 161.2, and 145.5, respectively, for the fourth, third, second, and first intelligence quartiles.

Summary

The data presented in Tables 7 and 8 imply the presence of a definite relationship between intelligence quotients and the possession of music information and appreciation among the group of first-year and second-year music students participating in the present study. In both cases, as was true also of musical accomplishment (see preceding chapter), those students with the highest intelligence tended to make the highest scores. Individual and even quartile deviations from this trend were numerous, but, in the main, the tendency was distinct.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The writer, believing that a series of tabulations will be of value in connection with a summary of her study, has compiled a series of ten tables which are to be a part of this chapter. These tables, it is hoped, will serve two purposes: (1) they are intended as a summary of the findings that have been previously introduced and analyzed, and (2) they are to aid in determining whether any relationship exists between music and personality, and whether the personality needs of the students of Denton Senior High School are being met through music.

Following the analysis of these tables, conclusions and recommendations will be advanced as outcomes of this study.

Summary

Tables 9 and 10 show percentiles of attainment on the self-adjustment, social-adjustment, musical-accomplishment, and music-information-and-appreciation tests for the first-year and second-year students, respectively. All percentiles appearing in these and in succeeding tables were worked out

in accordance with instructions and keys provided on the tests utilized in this study. The value of comparing percentiles in the following connections is found in the fact that they provide a common basis from which to work and upon which to carry out an analysis, for they reduce the scores on all of these tests to meaningful and comparable levels.

In Table 9 are arranged the percentiles of the first-year music students for the personality and music tests, listed in quartiles in accordance with descending intelligence quotients. Thus the percentiles are arranged in the same order as were the test scores of the same pupils in preceding tables.

The percentiles for self-adjustment range from a high of eighty-five to a low of five. The third intelligence quartile has the highest average percentile, 41.4; and the fourth, first, and second quartiles are next in order with percentiles, respectively, of 33.7, 20.0, and 17.8.

In social adjustment, the percentile range is from sixty-five to five. Here again the third intelligence quartile has the highest percentile, 35.7; whereas the other quartiles, in order of average percentiles, are as follows: fourth, 30.0; second, 15.7; and first, 14.3. This analysis of percentiles for the first-year students on the two phases of the personality test merely verifies and strengthens the previous finding that, seemingly, intelligence is not a significant factor in connection with

TABLE 9

PERCENTILES OF THE FIRST-YEAR MUSIC STUDENTS FOR THE
PERSONALITY AND MUSIC TESTS, ARRANGED IN QUARTILES
ON THE BASIS OF DESCENDING
INTELLIGENCE QUOTIENTS

Pupil Number	Self-Adjustment	Social Adjustment	Musical Accomplishment	Music Information and Appreciation
1...	75	25	80	73
2...	40	65	80	94
3...	40	50	80	86
4...	15	5	60	76
5...	25	20	80	76
6...	45	30	80	80
7...	15	25	80	60
8...	15	10	70	69
9...	10	15	60	49
10...	85	65	80	94
11...	10	20	60	73
12...	50	50	80	91
13...	40	50	80	69
14...	45	25	80	76
15...	50	25	80	80
16...	25	15	70	69
17...	30	10	70	60
18...	10	20	60	54
19...	15	15	50	49
20...	5	20	30	54
21...	5	10	60	64
22...	35	20	80	69
23...	30	20	50	54
24...	10	5	50	49
25...	5	5	70	49
26...	10	5	50	35
27...	45	35	80	83
28...	30	20	60	44
29...	20	10	50	35
30...	10	15	40	21
Averages on the Basis of Quartiles				
4th..	33.7	30.0	76.2	76.7
3rd..	41.4	35.7	74.2	76.0
2nd..	17.8	15.7	60.0	59.8
1st..	20.0	14.3	56.2	46.2

efficiency in the self-adjustment and social-adjustment phases of personality.

A different story is told, however, in the case of the two music tests, as has been previously intimated in the analysis of the test scores. In musical accomplishment, the percentiles ranged from eighty to thirty, with a preponderance of the higher scores to be found in the two higher intelligence quartiles. The quartile average percentiles ranged from 76.2 for the highest quartile to 56.2 for the lowest, and the descent was consistent in keeping with intelligence quotients. A similar situation prevailed in the case of music information and appreciation, although here the percentile range was from ninety-four to twenty-one. The percentile averages for the quartiles ranged from 76.7 for the highest quartile to 46.2 for the lowest, with a consistent decline in accordance with intelligence ratings.

Hence, intelligence seems to have had a definite bearing upon the scores made upon both music tests used in this study.

Table 10 presents similar data for the second-year music students. In self-adjustment, the percentile range is from ninety-five to one. The third intelligence quartile has the highest percentile, 55.0; whereas the other quartiles have the following percentiles: second, 39.2; fourth, 35.0; and first, 30.7. In social adjustment, the range of percentiles is from ninety to five. Quartile averages are the same in this case as for self-adjustment, so far as order

TABLE 10

PERCENTILES OF THE SECOND-YEAR MUSIC STUDENTS FOR THE
PERSONALITY AND MUSIC TESTS, ARRANGED IN QUARTILES
ON THE BASIS OF DESCENDING
INTELLIGENCE QUOTIENTS

Pupil Number	Self-Adjustment	Social Adjustment	Musical Accomplishment	Music Information and Appreciation
1...	85	45	90	99
2...	30	80	90	86
3...	25	25	90	99
4...	30	20	90	93
5...	15	30	90	94
6...	30	10	90	94
7...	30	40	90	91
8...	25	20	90	94
9...	90	45	90	93
10...	35	35	90	93
11...	30	40	90	93
12...	20	5	80	91
13...	95	90	90	93
14...	80	35	80	94
15...	30	50	80	86
16...	65	15	90	86
17...	15	40	90	91
18...	35	30	90	91
19...	10	35	90	83
20...	30	20	90	86
21...	90	70	80	94
22...	40	25	80	80
23...	30	20	60	76
24...	35	30	90	80
25...	45	20	80	76
26...	30	25	80	76
27...	1	5	60	76
28...	35	50	80	86
29...	30	30	80	86
Averages on the Basis of Quartiles				
4th..	35.0	35.7	90.0	93.7
3rd..	55.0	38.5	87.1	93.0
2nd..	39.2	37.1	87.1	88.1
1st..	30.7	26.8	76.2	79.5

of rank is concerned. That is, the third intelligence quartile has the highest percentile, the second has the second highest, and the fourth has the third highest and the first, the lowest. In this group of students, as among those of the first-year group, intelligence seemed to have little influence upon self-adjustment and social adjustment.

In the instance of musical accomplishment, the percentiles range from ninety to sixty. All of the students in the fourth intelligence quartile, five of the seven in the third quartile, five of the seven in the second quartile, and one of the eight in the first quartile made percentiles of ninety. The quartile averages of percentiles decrease in accordance with descending intelligence quotients, as is shown in the table. For music information and appreciation, the percentiles range from ninety-nine to seventy-six, and the quartile averages decrease in each instance in keeping with intelligence rating.

Hence, intelligence seems to have had a part in determining efficiency on the tests of musical accomplishment and music information and appreciation.

Tables 11 and 12 attempt to show the placement of students with relation to their percentiles on the two personality and the two music tests used in this study. Intelligence quotients do not enter into these tabulations, except in so far as the pupil numbers used here are the same as those previously determined on the basis of intelligence.

TABLE 11

PERCENTILES OF THE FIRST-YEAR MUSIC STUDENTS FOR THE PERSONALITY
AND MUSIC TESTS, ARRANGED IN QUARTILES ON THE BASIS OF
DESCENDING PERCENTILES IN EACH INSTANCE

Self-Adjustment		Social Adjustment		Musical Accomplishment		Music Information and Appreciation	
Pupil Number	Per-centile	Pupil Number	Per-centile	Pupil Number	Per-centile	Pupil Number	Per-centile
10	85	2	65	1	80	2	94
1	75	10	65	2	80	10	94
12	50	3	50	3	80	12	91
15	50	12	50	5	80	3	86
6	45	13	50	6	80	27	83
14	45	27	35	7	80	6	80
27	45	6	30	10	80	15	80
2	40	1	25	12	80	4	76
3	40	7	25	13	80	5	76
13	40	14	25	14	80	14	76
22	35	15	25	15	80	1	73
17	30	5	20	22	80	11	73
23	30	11	20	27	80	8	69
28	30	18	20	8	70	13	69
5	25	20	20	16	70	16	69
16	25	22	20	17	70	22	69
29	20	23	20	25	70	21	64
4	15	28	20	4	60	7	60
7	15	9	15	9	60	17	60
8	15	16	15	11	60	18	54
19	15	19	15	18	60	20	54
9	10	30	15	21	60	23	54
11	10	8	10	28	60	9	49
18	10	17	10	19	50	19	49
24	10	21	10	23	50	24	49
26	10	29	10	24	50	25	49
30	10	4	5	26	50	28	44
20	5	24	5	29	50	26	35
21	5	25	5	30	40	29	35
25	5	26	5	20	30	30	21
Averages on the Basis of Quartiles							
4th..	54.3	..	46.2	..	80.0	..	85.5
3rd..	32.8	..	22.1	..	77.1	..	72.1
2nd..	16.4	..	17.1	..	62.8	..	59.2
1st..	8.1	..	7.5	..	47.5	..	41.3

TABLE 12

PERCENTILES OF THE SECOND-YEAR MUSIC STUDENTS FOR THE PERSONALITY AND MUSIC TESTS, ARRANGED IN QUARTILES ON THE BASIS OF DESCENDING PERCENTILES IN EACH INSTANCE

Self-Adjustment		Social Adjustment		Musical Accomplishment		Music Information and Appreciation	
Pupil Number	Per-centile	Pupil Number	Per-centile	Pupil Number	Per-centile	Pupil Number	Per-centile
13	95	13	90	1	90	1	99
9	90	2	80	2	90	3	99
21	90	21	70	3	90	5	94
1	85	15	50	4	90	6	94
14	80	28	50	5	90	8	94
16	65	1	45	6	90	14	94
25	45	9	45	7	90	21	94
22	40	7	40	8	90	4	93
10	35	11	40	9	90	9	93
18	35	17	40	10	90	10	93
24	35	10	35	11	90	11	93
28	35	14	35	13	90	13	93
2	30	19	35	16	90	7	91
4	30	5	30	17	90	12	91
6	30	18	30	18	90	17	91
7	30	24	30	19	90	18	91
11	30	29	30	20	90	2	86
15	30	3	25	24	90	15	86
20	30	22	25	12	80	16	86
23	30	26	25	14	80	20	86
26	30	4	20	15	80	28	86
29	30	8	20	21	80	29	86
3	25	20	20	22	80	19	83
8	25	23	20	25	80	22	80
12	20	25	20	26	80	24	80
5	15	16	15	28	80	23	76
17	15	6	10	29	80	25	76
19	10	12	5	23	60	26	76
27	1	27	5	27	60	27	76
Averages on the Basis of Quartiles							
4th..	78.5	..	61.4	..	90.0	..	95.4
3rd..	34.2	..	36.4	..	90.0	..	94.4
2nd..	30.0	..	26.4	..	85.7	..	87.4
1st..	17.6	..	14.3	..	75.0	..	79.1

In these two tables, the quartiles are arranged on the basis of descending percentiles for each of the tests, without regard to where the individual student may be placed in the set-up. The quartile averages at the bottom of the tables are not particularly significant except as items of interest, as they are not comparable so far as the analysis is concerned.

Only a few interesting facts will be pointed out in connection with these tables and with the placement of students. In Table 11, for instance, it is found that pupil ten is placed in the fourth (or highest) quartile on all four of the tests; the same is true of pupil two. Likewise, pupil twenty-four appears in the first (or lowest) quartile on all four tests. In Table 12, pupil one is consistently placed in the fourth quartile on all tests, pupil ten is in the third quartile on all tests, and pupil twenty-seven is at the very bottom of the lowest quartile in each case. Other interesting facts may be determined by similarly seeking out the placement of other pupils on the basis of their percentiles on the various tests.

Tables 13, 14, 15, and 16 were compiled from Tables 11 and 12, and are designed to depict more clearly the placement of students with relation to their quartiles based upon percentiles on the various tests. Tables 13 and 14 show the quartile placement of first-year and second-year students, respectively, with relation to musical accomplishment and music

TABLE 13

QUARTILE PLACEMENT* OF FIRST-YEAR MUSIC STUDENTS WITH RELATION
TO SELF-ADJUSTMENT, MUSICAL ACCOMPLISHMENT, AND MUSIC
INFORMATION AND APPRECIATION

Self-Adjustment Quartiles	Pupil Number	Musical Accomplish- ment Quartiles				Music Information and Appreciation Quartiles			
		4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.
Fourth.....	10	x				x			
	1	x					x		
	12	x				x			
	15		x			x			
	6	x				x			
	14		x				x		
	27		x			x			
	2	x				x			
Third.....	3	x				x			
	13		x				x		
	22		x						
	17			x				x	
	23				x			x	
	28				x			x	
	5	x					x		x
Second.....	16		x				x		
	29				x				x
	4			x		x			
	7	x						x	
	8		x				x		
	19				x				x
First.....	9			x					x
	11						x		
	18			x					
	24							x	
	26				x				x
	30				x				x
	20				x				x
	21			x				x	
25			x					x	

*Quartile placement is on the basis of percentiles shown in Table 11, and the pupil numbers refer to descending percentiles for self-adjustment as shown in the same table.

TABLE 14

QUARTILE PLACEMENT* OF SECOND-YEAR MUSIC STUDENTS WITH RELATION TO SELF-ADJUSTMENT, MUSICAL ACCOMPLISHMENT, AND MUSIC INFORMATION AND APPRECIATION

Self-Adjustment Quartiles	Pupil Number	Musical Accomplish- ment Quartiles				Music Information and Appreciation Quartiles			
		4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.
Fourth.....	13		x				x		
	9		x				x		
	21				x	x			
	1	x				x			
	14			x		x			
	16			x					
Third.....	25				x			x	x
	22				x				x
	10		x				x		
	18			x				x	
	24			x				x	
	28				x			x	x
Second.....	2	x						x	
	4	x					x	x	
	6	x				x			
	7	x							
	11		x				x		
	15			x			x		
First.....	20			x				x	
	23			x				x	
	26				x				x
	29				x				x
	3	x				x			
	8		x			x			
	12			x			x		
	5	x				x			
	17		x						
	19			x				x	
	27				x				x

*Quartile placement is on the basis of percentiles shown in Table 12, and the pupil numbers refer to descending percentiles for self-adjustment, as shown in the same table.

information and appreciation, as compared with quartile placement in self-adjustment. The quartiles in self-adjustment are arranged vertically in the stubs of the tables, and the pupil numbers refer to placement of the personnel in these quartiles, on the basis of percentiles. The quartiles for the two music tests are arranged horizontally in the tables, and the "x" marks indicate the placement of students in quartiles.

Table 13 may be briefly analyzed as follows: Five of the students appearing in the highest self-adjustment quartile also appeared in the highest musical-accomplishment quartile, and three who were in the highest self-adjustment quartile were in the second highest musical-accomplishment quartile. Similarly, six of those who were members of the highest self-adjustment quartile were placed in the highest quartile in music information and appreciation, and two were in the second highest quartile in this phase of the music test. Examining the personnel of the first or lowest self-adjustment quartile, one discovers a similar concentration, except that here the concentration appears in the two lower quartiles in musical accomplishment and music information and appreciation. Hence, for the highest and lowest quartiles, a definite relationship apparently existed between self-adjustment and musical accomplishment and music information and appreciation. In the two central self-adjustment quartiles, however, the diffusion of students among the

quartiles of the two music tests is so great as not to indicate any distinct relationships. The same is true for all quartiles for the second-year students, as shown in Table 14. Hence, among the first-year group, music seems to have been more adequately meeting the personality needs of the pupils than was true in the second-year group. The concentration of students in the quartiles in Table 13 verifies the close relationship that existed between music and the self-adjustment phases of personality.

Tables 15 and 16 present the same type of information for first-year and second-year music students, respectively, except that here the basis of comparison is social adjustment instead of self-adjustment. A detailed analysis of these tables is unnecessary, since their implications are almost identical to those brought out in Tables 13 and 14. In Table 15, a close relationship is indicated between social adjustment and musical accomplishment and music information and appreciation. The perceptible quartile concentration of students is ample proof of this statement, particularly that which occurs in the fourth and first social-adjustment quartiles. In the two central quartiles, a transition of placement from highest to lowest is taking place in the quartiles, and the relationship is not so noticeable as at the extremes of the quartiles. Among the second-year group, as shown in Table 16, the diffusion is so general throughout all quartiles that relationships are not readily perceptible.

TABLE 15

QUARTILE PLACEMENT* OF FIRST-YEAR MUSIC STUDENTS WITH RELATION TO SOCIAL ADJUSTMENT, MUSICAL ACCOMPLISHMENT, AND MUSIC INFORMATION AND APPRECIATION

Social Adjustment Quartiles	Pupil Number	Musical Accomplishment Quartiles				Music Information and Appreciation Quartiles			
		4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.
Fourth.....	2	x				x			
	10	x				x			
	3	x				x			
	12	x				x			
	13		x				x		
	27		x			x			
	6	x				x			
	1	x					x		
Third.....	7	x						x	
	14		x				x		
	15		x			x			
	5	x					x		
	11			x			x		
	18			x				x	
20				x			x		
Second.....	22		x					x	
	23				x			x	
	28				x				x
	9			x					x
	16		x				x		
	19				x				x
	30				x				x
First.....	8		x				x		
	17			x				x	
	21			x				x	
	29				x				x
	4			x		x			
	24				x				x
	25		x						x
	26				x				x

*Quartile placement is on the basis of percentiles shown in Table 11, and the pupil numbers refer to descending percentiles for social adjustment as shown in the same table.

TABLE 16

QUARTILE PLACEMENT* OF SECOND-YEAR MUSIC STUDENTS WITH RELATION TO SOCIAL ADJUSTMENT, MUSICAL ACCOMPLISHMENT, AND MUSIC INFORMATION AND APPRECIATION

Social Adjustment Quartiles	Pupil Number	Musical Accomplishment Quartiles				Music Information and Appreciation Quartiles				
		4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.	
Fourth.....	13		x				x			
	2	x						x		
	21				x	x				
	15			x				x		
	28				x			x		
	1	x				x				
	9		x				x			
	Third.....	7	x					x		
		11		x				x		
17		x						x		
10			x				x			
14				x		x				
19		x							x	
5		x				x				
Second.....	18			x				x		
	24			x					x	
	29				x				x	
	3	x				x				
	22				x				x	
	26				x				x	
	4	x					x			
First.....	8		x			x				
	20			x				x		
	23				x				x	
	25				x				x	
	16			x				x		
	6	x				x				
	12			x			x			
27				x				x		

*Quartile placement is on the basis of percentiles shown in Table 12, and the pupil numbers refer to descending percentiles for social adjustment as shown in the same table.

Strangely, then, both self-adjustment and social adjustment appear to be closely related with music in the first-year group but not so closely related in the second-year group.

Table 17 has been compiled from Tables 13 and 15 and shows, in numbers, the quartile distribution of first-year music students with reference to self-adjustment, social adjustment, musical accomplishment, and music information and appreciation. The placement of students in the various quartiles is clearly presented, so that one may readily see, for instance, that the eight students of the fourth self-adjustment quartile were members of the fourth and third musical-accomplishment quartiles, and that the eight members of the first self-adjustment quartile were placed in the second and first musical-accomplishment quartiles. Similarly, the eight members of the fourth self-adjustment quartile were found in the fourth and third quartiles in music information and appreciation, and the eight persons contained in the first self-adjustment quartile were distributed throughout the third, second, and first quartiles in music information and appreciation, with a concentration in the first quartile. It is easily seen, too, that the members of the two central quartiles in self-adjustment were rather evenly distributed throughout all of the quartiles in musical accomplishment and in music information and appreciation. The same type of analysis of the social-adjustment quartiles will reveal

similar placements of individuals throughout the quartiles based on the two music tests.

TABLE 17

QUARTILE DISTRIBUTION OF FIRST-YEAR MUSIC STUDENTS WITH RELATION TO SELF-ADJUSTMENT, SOCIAL ADJUSTMENT, MUSICAL ACCOMPLISHMENT, AND MUSIC INFORMATION AND APPRECIATION

Personality Tests	Musical Accomplishment Quartiles				Music Information and Appreciation Quartiles			
	4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.
Self-adjustment								
4th. quartile..	5	3			6	2		
3rd. quartile..	2	2	1	2	1	2	3	1
2nd. quartile..	1	2	2	2	1	2	1	3
1st. quartile..			4	4		1	3	4
Social adjustment								
4th. quartile..	6	2			6	2		
3rd. quartile..	2	2	2	1	1	3	3	
2nd. quartile..		2	1	4		1	2	4
1st. quartile..		2	3	3	1	1	2	4

Table 18, which is based on Tables 14 and 16, presents the same type of data for the second-year music students of the Denton Senior High School. Here, as has been previously pointed out, the quartile placement of individual students does not imply the existence of a close relationship between personality and musical accomplishment, information, and appreciation. The general diffusion of the students throughout all quartiles in the table precludes the possibility of stating,

TABLE 18

QUARTILE DISTRIBUTION OF SECOND-YEAR MUSIC STUDENTS WITH
RELATION TO SELF-ADJUSTMENT, SOCIAL ADJUSTMENT,
MUSICAL ACCOMPLISHMENT, AND MUSIC
INFORMATION AND APPRECIATION

Personality Tests	Musical Accomplishment Quartiles				Music Information and Appreciation Quartiles			
	4th.	3rd.	2nd.	1st.	4th.	3rd.	2nd.	1st.
Self-adjustment								
4th. quartile..	1	3	1	2	3	2	1	1
3rd. quartile..	2	1	2	2	2	2	3	2
2nd. quartile..	2	1	2	2	1	2	2	2
1st. quartile..	2	2	2	2	3	1	1	3
Social adjustment								
4th. quartile..	2	2	1	2	2	2	3	
3rd. quartile..	4	2	1	2	2	3	1	1
2nd. quartile..	2		2	3	1	1	1	4
1st. quartile..	1	2	2	3	2	1	2	3

with any degree of assurance, that the students who were more efficient in music were also more efficient in the self-adjustment and social-adjustment phases of personality development. Such a conclusion could safely be reached in connection with the first-year students, but would be hazardous here.

Conclusions

In view of the data that have been presented and analyzed in this study, the following conclusions appear to be adequately supported:

1. Second-year music students made higher scores on all phases of personality and music tests than did the first-year students.

2. Both first-year and second-year students apparently were weaker in self-reliance, freedom from withdrawing tendencies, and freedom from nervous symptoms than they were in sense of personal worth, sense of personal freedom, and feeling of belonging, all of which were phases of the self-adjustment section of the personality test.

3. In the social-adjustment phase of the personality test, both groups of music students were comparatively weaker in school relations and community relations than they were in social standards, social skills, freedom from anti-social tendencies, and family relations.

4. Intelligence quotients seemed to exert little or no influence upon the ability of the students to make high scores on the various phases of the personality test.

5. A rather definite tendency prevailed in connection with one phase of the investigation; that is, the students with the highest intelligence quotients tended to make the highest scores on both music tests, taken as a whole.

6. There was a pronounced trend for the first-year students who ranked high in music accomplishment, information, and appreciation to rank high also in the self-adjustment and social-adjustment phases of personality development. This finding indicates that music is meeting, at least in part,

the personality needs of the first-year music students.

7. No such tendency was discovered among the second-year group, which fact implies that music is not so adequately meeting the personality needs of these students as it is those of the first-year students.

Recommendations

The following recommendations seem to be logical outcomes of this study:

1. The music program of the secondary schools should place more emphasis upon those phases of music which tend toward the enrichment of life and the broadening of artistic and social appreciations.

2. More students should be encouraged to enroll in music courses because of the valuable contributions to personal development and the enjoyment of life that a study of music provides.

3. Other investigations similar to the present one should be undertaken in an effort to determine more accurately whether the music program of the secondary schools is adequately meeting the personality needs of high-school students, and whether any definite relationship exists between music ability and personality growth.

BIBLIOGRAPHY

- Beattie, John W., "Theory and Practice," Music Educators Journal, XXV (September, 1938), 22-24.
- Bevins, Alice E., "What Materials Shall be Used to Teach Music in Elementary Schools?" Education, LVI (May, 1936), 536-540.
- Birge, Edward Bailey, History of Public School Music in the United States, Boston, Oliver Ditson Company, 1928.
- Bush, Winifred, "Music Educates Us," Nation's Schools, XX (October, 1937), 43-44.
- Dennis, Charles M., "Music in a Machine Age," California Journal of Secondary Education, XI (March, 1936), 171-174.
- Frank, Lawrence K., "The Child's Outlook on the World," Progressive Education, XV (October, 1938), 453-458.
- Hartman, Gertrude, and Shumaker, Ann, editors, Creative Expression, New York, John Day Company, 1932.
- Hesser, Ernest G., "The Music Program in the Public Schools," Music Educators Journal, XXVII (December, 1940), 27.
- Hopkins, L. Thomas, "The Arts and Aesthetics," Teachers College Record, XXXIX (January, 1938), 328-340.
- Ireland, Mary Elizabeth, "The Dual Function of Music in Education," California Journal of Secondary Education, XI (October, 1936), 347-349.
- Kestenbergl, Leo, "Music Education Goes Its Own Way," The Musical Quarterly, XXV (October, 1939), 442-454.
- Larson, William S., "Creative Music Teaching," Music Educators Journal, XXVII (September, 1940), 19-20, 67-69.
- Larson, William S., "Some Recent Trends in Music Education," Education, LVI (May, 1936), 513-520.
- Lindsay, George L., "Music Educators Constantly Progressing," The Etude, LVIII (April, 1940), 222, 283.

- Mursell, James L., "A Balanced Curriculum in Music Education," Education, LVI (May, 1936), 521-526.
- Newman, Elizabeth, "A Rational Approach to Music Teaching," in Creative Expression, edited by Gertrude Hartman and Ann Shumaker, pp. 86-90, New York, John Day Company, 1932.
- Pond, Donald, "Music as a Social Function in the Child's World," Progressive Education, XIII (March, 1935), 174-178.
- Seashore, Carl E., "Youth and Music," School Review, XLVIII (April, 1940), 268-277.
- Shuck, Lenel, "Music Education Comes of Age," Education, LIX (May, 1939), 521-527.
- Smith, Fowler, "Music Education Arises to the Call," Music Educators Journal, XXVII (March-April, 1941), 9.
- Sur, William Raymond, "The Music Teacher and Guidance," Music Educators Journal, XXV (May, 1939), 16-17.
- Surette, Thomas Whitney, "A General View of Music Education for Children," in Creative Expression, edited by Gertrude Hartman and Ann Shumaker, pp. 69-74, New York, John Day Company, 1932.