

**The Musical Aptitude Profile:**  
**A New and Unique Musical Aptitude Test Battery**

For more than fifty years, music educators and psychologists have debated the issue of the nature of musical aptitude. Regardless of the fact that philosophical opinion about the nature of musical aptitude has been more abundant than experimental research, present-day music educators generally tend to think that musical aptitude is best understood as a product of environmental influences and inherited potential.

All aptitude tests are to some degree achievement tests. At any particular time in a person's life, his aptitude for accomplishing a given goal, whether it be the completion of a course in algebra, graduation from medical school, or learning to play a musical instrument, depends not only upon innate qualities, but also upon acquired characteristics which reflect both generalized environmental influence and direct teaching. An aptitude test may be distinguished from an achievement test only to the extent that the generalized function of aptitude is relatively maximized and specifically taught course-content material is relatively minimized.

The newly developed Musical Aptitude Profile is designed to minimize the influence of musical achievement and, instead, to measure as directly as possible aural perception, kinesthetic musical feeling, and musical expression as basic factors in musical aptitude. The tests in the battery depart quite markedly in important respects from those previously published and are based upon six years of research in the nature, description, and measurement of musical aptitude at the University of Iowa.

### PURPOSE OF THE TEST BATTERY

The Musical Aptitude Profile is designed to act as an objective aid for the teacher in evaluating students' musical aptitude so that the teacher can better provide for individual needs and abilities.

Test scores on the Musical Aptitude Profile can be used for the following purposes:

1. Encouraging participation in music performance organizations by students who will profit most from and contribute most to these groups

The test should be used positively for the objective and efficient identification of musically talented elementary, junior high, and senior high school students for membership in school instrumental and choral performance organizations. The primary aim is not to discourage anyone from participation, but rather to encourage participation on the part of those who have potential for musical accomplishment.

2. Adapting music instruction to meet the individual needs and abilities of students

Musical aptitudes, like all other aptitudes are relative. A student's various scores on the Musical Aptitude Profile can be utilized for the purpose of determining appropriate instruction through group and individual teaching methods. All students have at least some musical talent which may be developed. Because few students score equally high or low on all of the seven basic musical

aptitude factors represented in the Musical Aptitude Profile, students should receive instruction emphasizing different methods and techniques to compensate for their specific deficiencies or to enhance their special musical aptitudes. Instruction may also be initiated for students who are identified as not achieving commensurate with aptitude. Suggestions for providing suitable music instruction apply not only to students who are receiving special music instruction but also to those students who are following a general music course of study. Also, teaching suggestions are offered both for low-scoring and high-scoring students.

3. Formulating educational plans in music

Some students excel in many subjects while others are not so versatile. For the student who enjoys many strengths, an analysis of his musical aptitude scores in comparison with other academic and vocational aptitude scores can help determine where educational emphasis might now best be directed as preparation for vocational and avocational goals.

4. Evaluating the musical aptitude of groups of students

School supervisors and music directors can objectively evaluate the musical potential of different groups of students within a school system or compare the musicality of members of a school music performance organization with national norms for select music students. The utilization of such knowledge will contribute to a more realistic interpretation of musical expectations for specific groups of students.

5. Providing parents with objective information

of administration. The use of tapes, as opposed to records, insures against imperfections common to disc recordings through over-use and mistreatment which, in time, seriously invalidate test results.

The tests consist of original short selections, composed for violin and cello by the author, which are performed by the following outstanding professional artists:

Stuart Canin - violin

Charles Treger - violin

Paul Olefsky - cello\*

The same tests are administered to all students beginning at the fourth grade level. No prior formal music training is required as a prerequisite for taking the test. The validity of the results depends only upon a seriousness of purpose and a general exposure to the sound of music.

The tests are not concerned with historical or technical facts about music. Students are asked only to compare a selection with a musical answer and to indicate whether the selection and musical answer are alike or different, or exactly the same or different, or to indicate which of two renditions is more musical. The student has a separate answer sheet on which to indicate his choice. If the student is not sure of the answer to a given exercise, he is instructed to mark the question mark (?) column, indicating that he is "in doubt." In this

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\* Mr. Canin was the first American to win the Paganini International Violin Competition in Genoa, Italy, in 1959. Mr. Treger was the first non-European to win the Henry Wieniawski International Violin Competition in Posnan, Poland, in 1962. Mr. Olefsky, among many other honors, has received the Michels Memorial Award.

been administered.

#### NORMS PROVIDED WITH THE TEST BATTERY

The battery was standardized on a representative sample of public school students in Grades 4 through 12, selected on the basis of procedures developed for the Project Talent study. Separate norms are provided for each of Grades 4 through 12. Norms for students participating in school music organizations are provided for three levels: Elementary School (Grades 4, 5, and 6), Junior High School (Grades 7, 8, and 9), and Senior High School (Grades 10, 11, and 12).

A permanent music cumulative folder is provided with the Musical Aptitude Profile. Test scores earned in the elementary, junior high, and senior high schools may be combined in the folder with other pertinent information which the music teacher finds to be of regular periodic interest.

In addition, a student-parent report is provided with the Musical Aptitude Profile. One of the most important features of this report is that the student may gain an understanding of the nature and extent of his musical aptitudes through a plot of his test results on the chart below his abridged scores which are entered in the report folder.

#### RELIABILITY OF THE TEST BATTERY

It is important that, for a battery which provides for use and interpretation of subtest scores, both subtests and total tests have satisfactory reliability. During the six-year developmental period, a great deal of experimentation was centered on improving item difficulty and discrimination, and upon improving the reliability characteristics of the various subtests without unduly increasing

group of musically select students. Second, the students participating in the experiment have had no previous formal music instruction other than what might be normally expected to occur in a general music class or, in rare instances, from lessons outside of school. Consequently, whatever relationship between test scores on the Musical Aptitude Profile and success in instrumental music is observed in the course of this experiment, it would appear to this degree that the Musical Aptitude Profile measures some trait which is not the result of musical training but which is particularly related to musical aptitude. This type of evidence provides a most important basis not for only evaluating the longitudinal predictive validity of the Musical Aptitude Profile, but indirectly for evaluating the construct validity of the test battery as well.

In each of the four participating school systems, students were provided with new high quality musical instruments on which to study. These instruments were obtained at no cost to the students through the generous assistance of the National Association of Band Instrument Manufacturers.\*

The school systems are providing the instructional staff and music of their choosing. The criteria for evaluating student's musical progress consists of ratings of 1) tape recorded performances of short musical etudes which the student

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\* Specifically, those member companies which either donated or consigned instruments to the University of Iowa for the purpose of conducting the study are: Artley, Incorporated, Elkhart, Indiana; Chicago Musical Instrument Company, Chicago, Illinois; C. G. Conn Limited, Elkhart, Indiana; Frank Holton Company, Elkhorn, Wisconsin; G. Leblanc Corporation, Kenosha Wisconsin; and H. A. Selmer Incorporated, Elkhart, Indiana.

prepared in advance with teacher help; 2) tape-recorded performance of short musical études which the student prepared in advance but without teacher help; and 3) tape-recorded performance of étude sight reading. Also used as criteria, are individual teacher's evaluations of each student's musical progress compared to other students in the group, and a musical achievement test specifically designed to assess the ability to identify musical notation associated with melodic, rhythmic, and harmonic passages heard on a tape recording, and to assess knowledge of musical terms and signs.

The design of the study provides for the recording of each student's performance of the three songs twice during two different but adjacent weeks so as to permit an estimate of the stability of student performance. Also, two judges, working independently, rate the students' recorded performances for the purpose of determining the reliability of the evaluations.

Validity coefficients, obtained after the first year of the study, representing the power of the Musical Aptitude Profile as a predictor of success in instrumental music as measured by judges' evaluations of students' tape-recorded performances, music achievement test scores, and teacher's ratings of students' musical progress, are presented below.

in artistic endeavors, the coefficients of predictive validity obtained thus far for the Musical Aptitude Profile are of the same general magnitude as those usually reported for the prediction of general academic or vocational success. This demonstrates the usefulness of the Musical Aptitude Profile for selection and prediction. However, the most important potential value of the battery lies in its usefulness as a guide for diagnosing individual musical strengths and weaknesses as a basis for adapting the instructional program to individual talents.

As is true with all aptitude tests, the usefulness of the battery in any local program will depend upon the extent to which it is used with healthy caution and wisdom.