

Proceedings of the Iowa Academy of Science

Volume 40 | Annual Issue

Article 102

1933

An Achievement Test of Dynamic Control in Music

O. Irving Jacobsen
State University of Iowa

Copyright ©1933 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

Recommended Citation

Jacobsen, O. Irving (1933) "An Achievement Test of Dynamic Control in Music," *Proceedings of the Iowa Academy of Science*, 40(1), 188-189.

Available at: <https://scholarworks.uni.edu/pias/vol40/iss1/102>

This Research is brought to you for free and open access by the Iowa Academy of Science at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

examinations on the talks were constructed, and subsequently given to the listeners.

The observers were divided into groups — one group listening to the first talk by radio receiver, and the second talk at the broadcasting studio. Another group served as auditors of the first talk at the studio and of the second talk by means of radio receivers.

The groups were selected so as to insure homogeneity, and so that they might be comparable. The time interval between the broadcast and the test was constant for all listeners. The specificity of the subject matter was checked by giving the tests to students in classes in psychology who had not heard the talks. Reliability of tests was determined by comparing (a) first half vs. last half of one test, and (b) test scores for the same individuals on two tests. Each radio listener used the receiver which he was accustomed to using, in its usual place and in the usual surroundings.

The test scores for the persons who listened by radio are slightly but consistently and significantly higher than the test scores of those who listened "directly." There is no relationship between performance on these tests and frequency of listening to radio programs. No other significant relationships, such as type of program preferred and intelligence for instance, are apparent.

DEPARTMENT OF PSYCHOLOGY,
IOWA STATE COLLEGE,
AMES, IOWA.

AN ACHIEVEMENT TEST OF DYNAMIC CONTROL IN MUSIC

O. IRVING JACOBSEN

The use of the power level indicator with readings in decibels was standardized. Musically trained observers were tested on their respective instruments, untrained observers by voice. Their achievement test was compared with their motor capacity and sensory capacity tests. Conclusions were drawn in regard to the effect of pitch level, intensity level, instruments, and training.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

SUBSTITUTION OF TIME FOR STRESS IN PERFORMANCE OF MEASURE ACCENT IN PIANO MUSIC

MACK T. HENDERSON

Very definite time organizations occur within the measure of a

given musical selection ($\frac{3}{4}$ time) apparently for the purpose of measure accent. Successive changes in stress do not account for measure accent nor do they operate with time changes to enhance the accent. Measurements are based upon recordings on the Iowa Piano Camera of the chorale section of Chopin's Nocturne, No. 6 (Opus 15, No. 3).

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

AN ANALYSIS OF TONE QUALITY OF ORCHESTRAL INSTRUMENTS

DONALD A. ROTHSCHILD

Sound waves from the instruments of the orchestra were phonophotographed, and by means of the Henrici Harmonic Analyzer the tone quality of each instrument was determined. Three notes covering the range of their registers, were taken of the wind instruments. An intensive series was taken from the string instruments to determine some of the differences in quality due to use of the mute, varied pressure in bowing, differences in fingering, and differences in structure of the instrument.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.

THE PATTERN SCORE IN SCIENTIFIC STUDY OF MUSIC

HAROLD SEASHORE

The pattern score, developed in the psychology of music to express the facts pertinent to both music and psychology, is here demonstrated in its more complete form. There is presented a sample of a song graphed on the pattern score which coordinately records the melody curve, the intensity curve, sample timbre analysis, durational aspects, facts from the musical score and phonetic elements. In its standardized form the pattern score fulfills the requirement that the basic musical and scientific concepts must be presented visually in adequately coordinated relationships.

STATE UNIVERSITY OF IOWA,
IOWA CITY, IOWA.