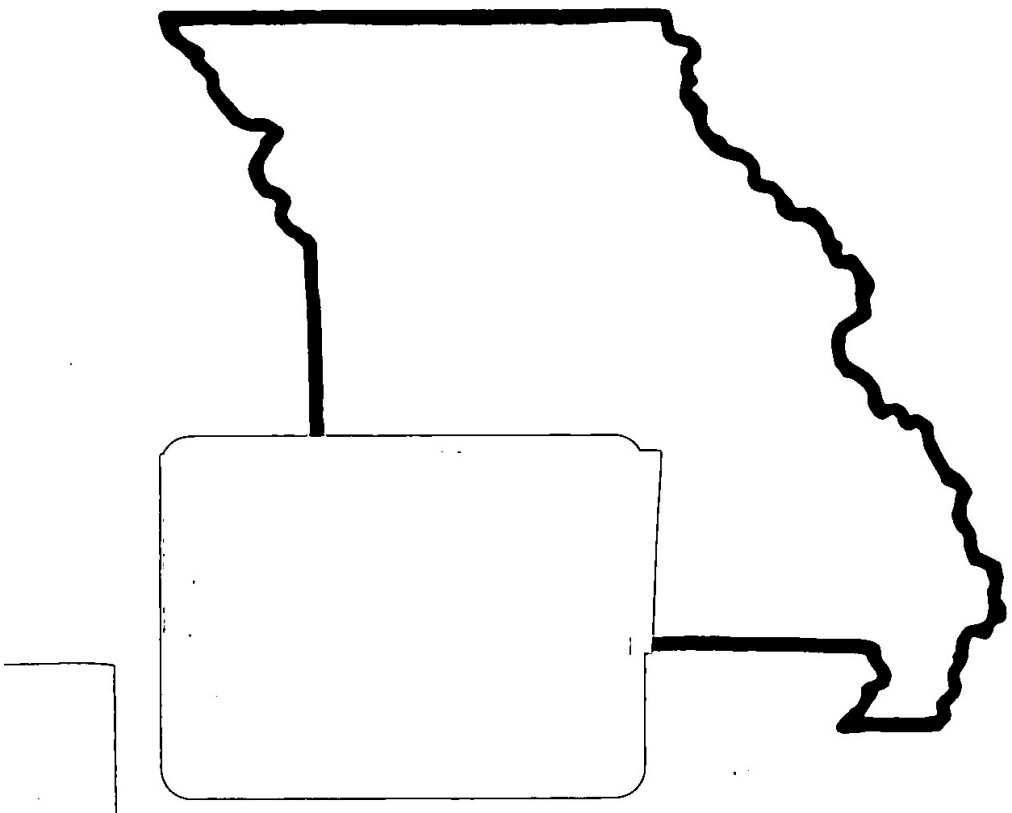
MISSOURI JOURNAL OF RESEARCH IN MUSIC EDUCATION



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PREFACE

The Missouri Journal of Research in Music Education, published by the Missouri Music Educators Association, is devoted to the needs and interests of teachers of music in Missouri and the nation. This issue is the twenty-seventh.

The members of the editorial committee are grateful to those readers who have written suggestions concerning the content of past issues and request that criticisms and suggestions again be sent to the editor concerning the content of this issue. We strive for a reasonable balance among music theory, history, philosophy, aesthetics and pedagogy.

We express our deep gratitude to the Missouri Music Educators Association for their financial support to make it possible to continue to publish the Missouri Journal of Research in Music Education.

The Editorial Board

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A COMPARISON OF THE EFFECTIVENESS OF SUPERVISED COMPUTER-ADMINISTERED MODULE QUIZZES IN COLLEGE MUSIC APPRECIATION CLASSES

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In widely used textbook on theories of learning, Bower and Hilgard reported on a very successful teaching strategy first employed by the psychologist, Fred Keller (Bower & Hilgard, 1981, p. 573). Keller, after many years as a college teacher, became dissatisfied with conventional teaching approaches. As a result of his training in psychology it was natural for him to develop a means of applying reinforcement theory to the teaching process (Keller, 1968, p. 80).

Keller proposed a system in which the teacher prepares a number of learning units for his course materials to replace or supplement lectures. The units coincide with assigned readings, lectures, or discussions. The purpose of lecturing in this system is to motivate, enrich, and focus especially on the objectives that were to be learned.

In preparation of these learning units, the instructor is very specific about what is to be learned. He must also decide how to divide the course into many self-contained units and how to assess student mastery of the units.

After preparing notes for each unit, the teacher allows the students to work at their own pace. Students

demonstrate mastery of a unit by passing a short quiz over the essential points of a unit at a high level of proficiency (e.g. 80% or better) before being allowed to progress to the next unit. The availability of proctors is required for test administration, and multiple versions of each unit quiz are necessary to allow students to retake a quiz until they are able to achieve the criterion score. Unit quiz grades that are below criterion level are not recorded, and final grades are often determined by the number of units successfully completed.

Ryan (1974, p. 3) states that the behavior-analysis elements of this teaching technique are found in giving close attention to two very important but often relatively ignored aspects of teaching which are (a) clearly describing what is to be learned and (b) effective management of reinforcement for study. He further states that other features of PSI are basically administrative structures adapted to individual needs. One must conclude that PSI is not based on a particular learning theory, but that it suggests the learning environment can be so structured as to encourage students to learn by whatever means they find most appropriate.

Greer (1981) advocates the use of principles of the PSI model in all types of music classes (i.e. studio, ensemble program, and general music). The basic characteristics of the PSI model he proposes are:

> (a) The model focuses on the actions and reactions (behaviors) of the learner in terms of the instructional objectives. (b) The learning tasks are analyzed behaviorally and categorically by hierarchies. (c) Learning rates and levels are systematically monitored and preserved in numerical

terms. (d) Strategies of teaching are based on scientifically derived principles of learning. (e) Actual teacher techniques are derived from principles and systematically practiced by the teacher in the classroom and rehearsal hall. (f) Strategies, principles, and techniques, as well as student learning, are preserved systematically, and there is an explicit system of accountability. (g) The teacher is responsible, within her or his power, for student learning. (p. 9)

According to Bower and Hilgard (1981, p. 573), studies that have compared the effectiveness of PSI with conventional methods have proven "extraordinarily favorable" to PSI. One study that supports Bower and Hilgard's recommendation of PSI was done by McMichael and Corey. A comparison of examination performance in a basic psychology course between a section taught using PSI and three control groups taught by traditional methods was done. The results were that the mean score of the PSI section was significantly higher ($p \leq .0001$) than each of the three control group means (McMichael & Corey, 1969, p. 80).

Born, Gledhill, and Davis (1972, p. 37) also collected data that indicated a superiority of the PSI approach. The combined final and midterm exam scores of a traditional lecture section of a Psychology of Learning course were compared to two PSI sections and a section employing a combination of approaches. The mean score of the section receiving traditional lecture instruction was significantly lower ($p < .05$) than for each of the other sections.

Kulik, Kulik, and Carmichael (1974, p. 383) surveyed numerous studies evaluating the effectiveness of the

Keller plan (PSI) in science teaching. Their review of evaluative research on PSI resulted in several general conclusions including that (a) students prefer instruction by PSI over lecture and (b) students report that they feel they learn more in PSI than lecture courses.

Research has also suggested that PSI can be successfully used in a music classroom. An experimental study by Jumpter (1981) indicated that PSI was an effective means to teach a Jazz/Rock unit to a music appreciation class. Jumpter also generated data which indicated that the students' attitude to PSI was favorable (i.e. 4.07 on a five-point Likert scale).

Implementation of PSI requires not only a vast amount of time in the preparation of course materials, but also great flexibility in proctoring quizzes. In the last twenty years since PSI was first proposed, technology has provided an alternative to the live proctoring of quizzes.

Hermann (1982) investigated the use of computers as an alternative to live proctoring of module quizzes. Subjects in his study were students in a beginning psychology course who were given a choice of taking module quizzes with a proctor or by computer. He found that both person and computer were equally effective and well-liked. Feedback was given by the computer after each attempt to pass a module quiz and was a simple statement referring the missed concept and its location within the student's written material.

East and Marasco (cited in Bork, 1981) used a computer to address the problem of course management in teaching an Introduction to Physics course. The course was self-paced, like PSI, for the first quarter, and the computer was not only used to administer quizzes

but also to control access to them. A student was given access to the quiz for each course or module only after having successfully completed the previous one.

The use of computers to administer module quizzes in a course modeled after a PSI format is especially appropriate for experimental research at Northwest Missouri State University since computer terminals are available in every dormitory room, faculty office, and the library. At least the problem of access to a computer terminal is reduced to insignificance in most cases. The use of a computer program to provide the student with quizzes and feedback solves the problem of access to a "live" proctor since the students have virtual 24-hour access to computer files.

Computers have been effectively used to administer exams; however, it has not been shown that students will respond equally well in a supervised and nonsupervised setting. This study then sought to discover whether a specially designed computer program could be used to administer module quizzes in a supervised and nonsupervised setting with equal learning effectiveness as measured on unit exams taken in the classroom.

The purpose of this study was to create course materials consisting of study guides and quizzes for each unit of the course 19-201, The Enjoyment of Music, and to create computer programs that would provide access for the student to quizzes and would report the results of the quizzes to the investigator. Further, the purpose of this study was to implement the use of the computer administered module quizzes in both a supervised and nonsupervised setting.

Method

Subjects

Two sections of music appreciation students (numbering 49 and 43 respectively) who are non-music majors at Northwest Missouri State University were available for a study of the relative effectiveness of computer administered module quizzes in a supervised and nonsupervised setting. The subject matter specialist taught both sections of music appreciation that were used in the study, and the Chairman of the Computer Science Department at Northwest designed the computer program that administered the quizzes.

Design

Section one of Music 201 which met at 12:00 noon on Monday, Wednesday, and Friday was designated the control group and section two, which met immediately after section one was designated the experimental group. Since intact groups were used for the investigation, the two sections were compared on the basis of ACT scores and years of previous musical experience (many students were first semester freshmen and therefore no college G.P.A. was available). A t-test was performed on the mean ACT scores and mean number of years of previous musical experience in order to determine whether there were significant differences between the two groups.

The control group was required to take module quizzes in a supervised computer laboratory. Each student was required to show identification before taking a quiz and record the date and time of the session. The investigator then compared the written record of the date and time of the module quiz with the computer record of the date and time before accepting it as valid. The

experimental group was allowed to take module quizzes at any suitable computer terminal without supervision.

The relative effectiveness of the supervised versus nonsupervised taking of module quizzes was measured by the students' performance on five unit exams which were taken in class and were based on the same objectives as the module quizzes. The mean scores on each of these unit exams were compared with a t-test. A grand mean using all five exams together was also used for comparing the performance of both groups and subjected to analysis with a t-test.

Materials

Greer (1980) presented a credit system for a college music appreciation course that, it was believed, would adequately serve as a PSI model with which to combine computer course management techniques devised for this project. Greer's model may be observed from the following description given to students:

> The work for Music 102 has been divided into 13 modules. The modules are in a definite order that follows the course outline. There is a quiz for each module that must be passed at the 80% level before advancing. A group of proctors, all of whom have mastered the content of Music 102, will administer the module quizzes. They will grade your quiz as soon as you are finished to enable you to immediately know your score. If you pass at the 80% criterion, the proctor will give you the study guide for the next module. If you fail to complete the quiz, you will be allowed to restudy the module and retake the quiz until you reach

> the 80% criterion. When you have passed the module quizzes for each unit, you will have earned the right to take a unit test. You will be encouraged to follow the term schedule, although there will be no penalty if you proceed at a slower pace. Three bonus points [approximately 30% of the total possible] will be awarded for each unit test taken on time (see appendix).

The coursework for this study was divided into 12 modules, and each module quiz had to be passed at the 85% level by midnight of the scheduled deadline before credit was awarded to the student. Although Greer's example used 80% as a criterion score, other studies had set higher scores; therefore, a compromise of 85% was chosen as the criterion score for this study. A total of 30% of the course grade was based on the timely completion of these module quizzes. Terminals linked to Vax 785/8650 mainframe computers were used exclusively to administer the quizzes.

The computer program was designed to meet several requirements. First, it had to be able to generate a different version of a module quiz each time a student attempted it, and second, it had to produce one and only one question for each objective of the module quiz. These requirements were met by using separate files for the objectives and test items for each module. The main program received input from the proper objective file after a student selected the appropriate module number, and then one question for each objective was selected from the test item file. Both the order of the objectives and the order of the multiple choice answers were randomized so that the student would be able to take a different version of the test each time it was attempted.

Thirdly, a time limit of 20 seconds was placed on responding to each question to discourage a student from consulting notes while taking a module quiz.

Other requirements for the program related to reporting the results of each attempted quiz. It was suggested by Hermann (1982) that students using computers as test administers could do so successfully if they obtained proper feedback; therefore, at the completion of a module quiz the student's score, the objectives missed, and the location of the missed objectives in the study guide were displayed for the students. The student's score, the time, and date of the attempt were reported to an indexed file from which a report could be generated to provide the investigator with the necessary information for the awarding of credit to each student.

Results

Students in this study were not randomly assigned to their groups; therefore, the two groups were tested for similarity on the basis of mean ACT scores and years of previous musical experience. The mean ACT scores for both groups were 19.88 and 19.82, and the standard deviations were 4.86 and 4.16. The results of the t-test indicated no significant different between the two mean scores, $t(82) = 0.05$, $p > .97$.

The mean years of previous musical experience were 3.56 for group 1 and 4.39 for group 2. The standard deviations were 3.13 and 3.27 for groups 1 and 2 respectively. Although a greater difference between the two groups was found to be in the area of years of previous musical experience, the t-test indicated there

was no significant difference in mean years of previous medical experience, $t(89) = 1.24$, $p > .22$.

At least on these two important variables the two groups were comparable. Therefore, it was assumed that a valid comparison of performance on exams could be made.

Mean scores for each of the five unit exams is given for both groups in Table 1. In addition, a grand mean score averaging all five unit exam means is given for both groups in the first column of Table 1 labeled total. The results of the t-test comparing the unit test means and the grand means for the two groups were all nonsignificant.

Table 1

Summary of t-Test Results Comparing the Mean Scores on Five Unit Exams of the Control Group (1) and Experimental Group (2) and Combined Mean Scores

Exam	Group	N	Mean	Standard Deviation	t	df	p
1	1	49	85.78	11.52			
	2	43	84.88	10.11	0.39	90	.70
2	1	49	82.90	13.04			
	2	43	82.58	12.35	0.12	90	.91
3	1	47	72.47	13.52			
	2	43	72.56	15.44	0.03	88	.98
4	1	48	80.29	11.69			
	2	42	82.95	12.83	1.03	88	.31
5	1	47	89.70	8.13			
	2	42	89.76	7.47	.04	87	.97
Total	1	49	80.58	12.63			
	2	43	81.74	10.24	.48	90	.63

Note. The n for each exam varies because some students in each class failed to complete each test.

Discussion

Since Hermann (1982) concluded that the computer could effectively be used to administer quizzes in a PSI context, the investigators sought to determine whether or not supervision of the computer-administered quizzes would influence unit exam scores. The investigators expected that students taking module quizzes in a nonsupervised setting might attempt to use notes or obtain scores by some other inappropriate means and would therefore not be as well-prepared as students who were supervised while taking module quizzes for their unit exams. The data, however, did not indicate a statistically significant superiority of the exam scores of either group. It appears that the independent variable, supervision versus non-supervision, had no significant effect on student performance on unit exams.

Potentially, several factors might have contributed to the results obtained in this study. For example, the completion of module quizzes could account for a maximum of only 30% of the final grade; therefore, it was believed that a student would not feel such pressure to pass that he would use inappropriate means to do so. Also, the randomization of the question order and 20-second wait factor for each item were built into the computer program to discourage students from using their notes while taking a quiz. Given the conditions of the weighing of quiz scores in calculating final grades, and the design of the computer program both the supervised and nonsupervised administration of module quizzes seemed equally effective.

Although the difference in the mean number of modules completed in both groups, as shown in Table 2, was not statistically significant, the mean number was

slightly higher in the experimental group (10.7381 compared to 10.2708 in the control group). This fact (possibly attributable to greater accessibility to work stations) coupled with the need for proctors required by the supervised approach, made the nonsupervised approach more attractive to both teachers and students alike.

Table 2

Summary of t-Test Results Comparing the Mean Number of Module Quizzes Completed by the Control Group (1) and Experimental Group (2)

Group	N	Mean	Standard Deviation	t	df	p
1	48	10.27	2.51			
2	42	10.74	1.90	.98	88	.33

The investigators respectfully suggest that future research be conducted in this area using other variables that might influence the retention of information. Two such variables are the number of attempts allowed for each quiz and the amount of elapsed time required before an exam could be repeated. It is quite possible that students would prepare themselves better if they knew they had a limited number of chances to succeed. Requiring some minimum amount of elapsed time between attempts would also encourage students to mentally rehearse information before repeating a quiz and thereby potentially increase the retention of information.

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A PRELIMINARY INVESTIGATION OF THE SUITABILITY OF SELECTED RATING SCALES USED TO MEASURE STUDENT MUSIC PERFORMANCE SKILLS

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In the recent past, there has been a comprehensive reexamination of publicly and privately supported educational programs throughout the United States. Many evaluation committees A Nation Prepared (1986), A Nation at Risk (1983), and Tomorrow's Teachers (1986) have concluded that the quality of academic programs at all levels is not sufficient to prepare students to function as competent adults in our society. The committees report that students have not been taught well and that the content of their course requirements has eroded in recent years. Many students are learning less and are not adequately prepared to contribute to the communities in which they live.

Numerous solutions have been proposed to rectify the problems challenging the public educational process. Many school curriculum committees advocate the improvement of teacher effectiveness and the upgrading of public school course requirements (Holmes Group, 1986). Unfortunately, those suggestions have been interpreted by some as a signal to strengthen and stress the teaching of language skills, mathematics, and the natural sciences while de-emphasizing or dismantling programs in music and the other fine arts.

As a result, music teachers and music supervisors are being asked to increasingly defend music as an essential part of school curricula. Music supervisors and music teachers are being asked to demonstrate, with empirical evidence, student achievement of music performance and music listening skills.

Previous research in the measurement and evaluation of student performance skills (Apfelstadt, 1985; Abeles, 1971; Feierabend, 1983; Rutkowski, 1987; Saunders, 1984) has assessed student music performance skills consistently using special procedures that isolate students from the classroom. Procedures that isolate students for individual testing have yielded more than adequate interjudge reliability coefficients ($r>.90$). When music performance is examined with students isolated for evaluation, the degree of error (differences between true and obtained student scores) attributed to individual differences between judges is relatively low.

Removing individual students from a classroom, however, disrupts normal general music classroom activities and, therefore, is not a practical evaluation method for a music supervisor or music teacher to perform periodically. Procedures that interfere with normal classroom routines of instruction are often met with concern by individual general music teachers and school administrators. Moreover, procedures that remove students to examine individual behavior in a standardized situation cannot be considered "typical." It is a sample of student response to a special situation; *a music performance opportunity being tested alone by an adult.*

In an investigation of seven year old students' ability to sing rote songs, Buckton (1983) recorded individual

students within large class groups by the use of small personal microphones. The recorded performances were later graded by the researcher outside of the classroom with the aid of a seven point rating scale. The data gathered indicated sex and cultural differences among seven year old students to sing songs accurately, however, no attempt was made to determine the reliability of the judge's use of the seven-point scale.

The intent of the present research was to determine if a music supervisor could enter a classroom, observe students engaged in participatory music skill activities, and successfully obtain measurement results that are reliable. Is it possible to achieve suitable measurement results without isolating students from the class group? There are inherent problems in attempting to assess individual student music performance skills within a large class group. Music performance achievement is a complex behavior difficult to assess in the face of any outside influencing variables. The use of personal microphones with multichannel recording equipment requires special expertise and extraordinary procedures that would disrupt normal classroom activities. However in a large group context, judges reasonably would have a more difficult time isolating individual students for accurate and consistent evaluations without the use of special equipment.

This study was initiated with the intent to develop measurement instruments and methodology for evaluating music performance skills of young children without the need to alter normal classroom activities. Once convinced that assessment instruments and procedures yielded consistent and accurate results, a supervisor of music would then be able to proceed to evaluate student progress periodically, without the need

for considerable prior arrangements, and be confident that the results reflect the magnitude of student learning growth. The purpose of this study, therefore, was to gather data to determine the suitability of the use of a set of music performance rating scales in a natural general music classroom setting, without the need for special equipment or to remove individual students for evaluation. More specifically, could rating scales which are used to assess objectively student music skill learning in regard to: a) rote song performance, b) echo-singing brief tonal patterns and c) echo-clapping brief rhythm patterns be shown to be reliable when used in an unaltered large-group music classroom setting?

Method

Within a general music classroom, two trained music specialists evaluated individual student's abilities to perform three different music skill activities. Participants in the study were 120 kindergarten and 60 first grade students who were enrolled in the Baltimore City Schools. The students who participated in the evaluation project came from a variety of ethnic backgrounds and wide range of socioeconomic levels. The students received weekly instruction of general/vocal music from trained music specialists. Individual class groups included approximately 20 to 30 students.

Students chosen for individual music skill performance assessment were selected at random prior to the judges entering the music classroom. During the course of a teacher initiated music skill activity, two judges observed five different students. Both judges observed concurrently the same five students for each individual music skill activity. Individual judgments of

each student took approximately two minutes to complete.

For each class group, a representative sample of fifteen students was evaluated. A different set of five randomly selected students was observed for each of the three music skills evaluated. The fifteen students were considered a representative sample of overall class achievement.

The students were observed and judged in regard to their individual ability to: a) sing a short song, b) echo-sing a selection of individual tonal patterns using a neutral syllable; and c) echo-clap a selection of individual rhythm patterns. The rote song, tonal patterns and rhythm patterns were introduced to the students during previous class meetings. Students were familiarized with the echo-clapping and echo-singing procedures by the general music teacher prior to the time of student evaluation.

Three five-criteria music performance rating scales (see Table 1) were used to assess individual student music performance skills during a large-group participatory activity. For each rating scale, each of the five written music performance criterion is sequentially more demanding. The continuous five-point rating scale has been found to be more reliable than a five-criteria check list or additive type of rating scale in which the set of criteria are not sequenced in regard to difficulty levels (Gordon, 1984, p. 270). For all three rating scales used in this study, each of the criteria describes a specific level of perceivable music skill achievement. That is in contrast to sets of criteria used in music performance rating scales which define overall levels of perceived

goodness such as poor, acceptable, good, and outstanding (Boyle & Radocy, 1987).

Table 1

Tonal pattern, rote song, and rhythm pattern rating scales for the first and second student performance evaluations

First Evaluation	Second Evaluation
Rote Song Rating Scale	
The student's vocal performance of of the prepared rote song:	
5. included accuracy in singing adjacent intervals and leaps	5. was accurately sung with precise pitch
4. included accuracy in singing adjacent intervals or leaps	4. was nearly accurate but included a minimum of imprecise pitches
3. included the maintenance of a pitch center and a general sense of melodic direction	3. included the maintenance of a pitch center and general sense of melodic direction
2. included the use of the singing voice and a general sense of melodic direction	2. included the use of the singing voice and a general sense of melodic direction (not in teacher pitch center)
1. did not include the use of the singing voice	1. did not include the use of the singing voice
Rhythm Pattern Rating Scale	
The student's echo-performance of the rhythm pattern:	
5. was accurately reproduced and included precise melodic rhythm	5. was accurately reproduced and included precise melodic rhythm
4. was nearly accurate but lacked precise melodic rhythm	4. was nearly accurate but lacked precise melodic rhythm

3. included a recognizable fragment fragment of the model pattern (at least two consecutive beats in length)
2. was not recognizable but included the appropriate meter
1. was not recognizable

3. was incorrect but began to approximate the teacher-performed model (included short fragments)
2. was not recognizable but included an inconsistent performance of meter beats*
1. was not recognizable

Tonal Pattern Rating Scale

The student's performance of the tonal pattern:

5. was accurate and included precise intonation
4. was nearly accurate but lacked precise intonation
3. contained appropriate melodic direction and included some (at least one) accurate pitches
2. contained melodic direction but excluded any accurate pitches
1. was not recognizable

5. was accurate and included precise pitch
4. was nearly accurate but lacked precise intonation
3. contained appropriate melodic direction and included some (at least one) accurate pitches
2. contained melodic direction but excluded any accurate pitches
1. was not recognizable

* meter beats are short consistent pulses which are superimposed upon larger recurring beats of music. A performance of meter beats provides an indication of an individual perception of duple or triple meter.

For each student and for each different skill assessment, both judges positioned themselves in close proximity to a student in order to listen to individual student performances. Most often, this required that both judges sit on opposite sides of a student seated on the floor during a particular student echo-performance. The judges listened to students individually as they participated in a group echo-response class activity. Both judges made efforts not to intimidate or discourage individual students from performing. For each student performance, each judge listened and assessed independently the perceived individual student performance skill level. After both judges completed the assessment of five different students, the music instructor started the next music performance skill activity.

Approximately fifteen weeks later in the school year the same students were reevaluated on the same set of specific individual music performance skills. The same judges who made the initial student evaluations also made the subsequent evaluations. The order in which students performed the three different performance skills and two of the three rating scales were modified for the subsequent assessments.

Design and Analysis

For both the initial and subsequent student music skill assessments, Pearson Product Moment Correlations were derived from the data to determine the interjudge reliability for each of the three rating scales. For each grade level and for each music performance skill activity, reliability coefficients were calculated from the composite group of student scores from different music classes. An interjudge reliability can also be interpreted as a

coefficient of equivalence, an estimate of congruent validity (Gordon, 1984, p. 262).

Results and Discussion

Presented in Table 2 are interjudge reliability coefficients for the first evaluation of individually assessed student song, rhythm patterns and tonal pattern performances. A reliability coefficient of .85 is desired and .90 is preferred for measurement instruments which are to be used to assess individual students (George, 1980, p. 295). The interjudge reliability coefficients for the first grade class were below acceptable levels for both the song performance and rhythm pattern performance. The interjudge coefficient for the tonal pattern performance, however, did approach an acceptable level.

Table 2

Interjudge Reliability Coefficients for Individual Student Song Performance, Rhythm Pattern Performance, and Tonal Pattern Performance

	Song	Rhy. Pat.	Ton. Pat.	(n)
Grade Level	First Evaluation			
Kindergarten	.67	.77	.88	(120)
First Grade	.60	.69	.81	(60)
	Second Evaluation			
Kindergarten	.85	.78	.90	(120)
First Grade	.88	.83	.81	(60)

The interjudge reliability coefficients of the kindergarten students was systematically higher for all of the rating scales than the reliability coefficients of the first grade students. Nonetheless, the kindergarten song performance and rhythm pattern reliabilities were also below acceptable standards. The kindergarten tonal pattern performance reliability, however, was fairly high.

For both the kindergarten and first grade, the low and moderately low reliability coefficients may be due to a variety of factors. A degree of ambiguity among the written rating scale criteria could have contributed to a reduced score range and a resultant decrease in scorer reliability. In addition, procedural difficulties in the identification of students and the order of performance activities contributed to an artificially compressed level of quality among children's responses which also contributed to a possible reduction in the range among student scores. Another factor contributing to a reduction of score variability was the fact that different songs were used among the different class groups.

After the initial evaluation procedure and upon examination of the interjudge reliability coefficients, two of the three different rating scales were altered (Table 1). The fourth and fifth criteria (the most difficult) of the rote song rating scale were changed. After the initial use of the rating scales, both judges concluded that it was not possible to judge a student performance of adjacent intervals and leaps clearly within an active classroom setting.

The rhythm echo-clap rating scale was altered to give more specific meaning for four of the five performance criteria. Brief descriptions of the criteria were added to reduce any ambiguity as to how the

specific terms were used in the rating scale. The tonal pattern rating criteria were not altered.

The process with which the rating scales were used within a general music classroom also seemed to influence the judges' ability to use the rating scales effectively. The amount of time that was necessary to identify each individual student for assessment contributed to relatively long period of time required for each music skill evaluation. The students exhibited fatigue and loss of attention due to the relatively long period of elapsed time required for each of the evaluations.

To improve the student identification process for the second evaluation procedure, students were given plainly written name signs which were clearly positioned to assure an unobstructed view from the judges. In addition, improved seating charts that indicated the student positions in the classroom clearly were provided to the judges prior to the second student music skill evaluation procedure.

The order in which specific student music performance skills were evaluated was observed to contribute to the eventual reduction in the amount of interest students would bring the performance tasks. For the first evaluation, the students were asked to first, sing a rote song; second, echo-clap rhythm patterns; third, echo-sing tonal patterns. The continuous repetitive listen-respond nature of consecutive tonal pattern and rhythm pattern performance tasks seem to have resulted in a reduction in student interest. Therefore the second evaluation procedure, the students were asked to first, echo-sing tonal patterns; second, sing a rote song; and third, echo-clap rhythm patterns.

For the first student assessment procedure, individual students were asked to perform songs that were chosen by the classroom teachers and, therefore, different songs were sung in different class groups. While the songs chosen by the different music teachers were suitable for the appropriate grade level, they were not, however, of equal difficulty levels. Bush (1986, p. 18) indicates that song length, the nature and occurrence of phrase repetition, and overall tempo as critical factors which influence the overall singing difficulty of songs among young children. The lack of consistent musical content and difficulty levels among the songs which were asked to be performed by the student contributed to the lack of consistency among student scores and obtained reliability coefficients. An extremely easy or difficult song would result in a lack of variability among student scores and would contribute to relatively low reliability coefficients. For the second evaluation procedure a new song was chosen for use with all of the different class groups. The song was chosen in regard to its relatively short length and suitable difficulty level.

Presented in Table 2 are composite interjudge reliability coefficients for the second assessment of the rote song, rhythm pattern, and tonal pattern performances for both the kindergarten and first grade students. All of the interjudge reliability coefficients are within or approaching acceptable high levels of magnitude of agreement. In contrast to the initial student performance assessments, there was an overall increase in the correlation coefficients between the two independent judges for each of the three student performance assessments.

Conclusions

During large group participatory music skill activities, student fatigue and loss of attention due to the excessive length of time and the repetitive nature of the student echo-response exercises seemed to be a primary cause of unreliable measurements of music performance skills among young students. The resultant lack of variability among student scores provides an unreliable and invalid assessment of music performance. Therefore, important to consider along with the use of appropriate rating scales in the general music classroom is the development of procedures that allow for the efficient identifications and evaluation of individual students. Music performance activities used for the evaluation of young students can reasonably be 15 to 20 minutes in length. Thus within the duration of a typical general music class period, it is possible to measure accurately only a representative sample of a total class group. For individual student assessments within a large group, rating scales that include criteria that detail technical difference between types of music content were found to be less appropriate than rating scales that include distinct descriptions of music performance levels.

The results from this study provide an initial positive indication that reliable and valid evidence of young individual student music performance achievement levels, observed during a large group student performance activities, can be collected within an unaltered general music classroom setting. However, additional validity information comparing the results of student music performance achievement obtained within a large-group environment with achievement results obtained from isolated student performance is needed. Further studies are also required to develop an additional number of

music performance measurement scales that could be used to assess objectively more advanced music performance skill levels of older students.

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LEMENTARY SCHOOL MUSIC TEACHERS' COMPARATIVE USE OF CLASSROOM TIME: TEACHERS WHO ARE AND ARE NOT ORFF-SCHULWERK CERTIFIED

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Orff-Schulwerk is described as an experiential approach to music education that stresses the stimulation and development of the musical qualities of the child (Liess, 1966). Influenced by the work of Dalcroze, Orff formulated a philosophy based on the premise that music, movement, and speech are inseparable and that rhythm is the basis for all musical development (Liess, 1966; Mark, 1986; Zinar, 1984).

Basic to Orff-Schulwerk is the use of rhythmic chanting and singing (Landis & Carder, 1974; Zinar, 1984). These become the "rhythmic building bricks" (Keetman, 1974, p. 17) used to construct a basic musical vocabulary of rhythmic, melodic and harmonic materials that can be easily manipulated by children to create their own compositions (Liess, 1966; Mark, 1986; Schneider, 1969; Zinar, 1984). Following a listen-imitate-repeat or echo sequence, musical materials are assimilated with the idea that "feeling precedes intellectual understanding" (Wheeler & Raebeck, 1977, p. xix).

The inherent characteristics of Orff's philosophy are evident in the instructional devices and materials used in the Schulwerk approach (Landis & Carder, 1974); particularly the use of speech patterns to develop feeling for basic note values, meter, phrase, pitch and dynamics, and the use of rhythmic and melodic ostinati as an accompaniment to moving, singing and playing (Mark,

1986; Ponath & Bitcon, 1972; Wheeler & Raebeck, 1977). It is assumed that the areas of activity found in a typical Orff-Schulwerk program in the United States would be speech, body rhythms (body percussion), singing, instrument playing, improvisation and composition, music reading, and dance, which can be defined as improvised body movement (Keetman, 1974; Schneider, 1969). In Orff-Schulwerk creativity is "the special process of composing in the context of group participation" (Ponath & Bitcon, 1972, p. 57).

Some researchers have examined the effects of the Orff-Schulwerk approach on various student outcomes, however their studies generally did not document the classroom activities used (Siemens, 1969; Glasgow & Hamreus, 1968). The literature reveals little research documenting the activities that are suggested to occur specifically in Orff-Schulwerk classes (Munsen, 1986), while there are a number of studies that document activities in elementary school music classes (Forsythe, 1977; Kuhn, 1972; Madsen & Madsen, 1981; Moore, 1976, 1981; Moore & Bonney, 1987; Sims, 1986; Wagner & Strul, 1979).

A study designed to determine the feasibility of adapting the Orff-Schulwerk approach to American schools (Glasgow & Hamreus, 1968) used a pre/posttest design in which rhythmic and melodic memory, rhythmic and melodic improvisation, and the ability to read notation were used as dependent measures. Significant gains were found in the ability to perform rhythm patterns and create rhythmic consequent phrases, while the gains for the other measures were not significant. Siemens (1969) compared the effects of an Orff-Schulwerk approach to traditional methods on student attitudes and achievement. The results indicated a more

positive level of interest and attitude for students in the Orff over the traditional approach, but no differences in musical achievement. No attempt was reported, in either of these studies, to analyze or document the types of activities (treatment) used in the Orff-Schulwerk or the traditional approach.

One study did develop a behavioral analysis for the use of an Orff-Schulwerk strategy with mentally retarded adults (Ponath & Bitcon, 1972). Articles have been written giving brief descriptions of pilot programs, such as the one at Bellflower in California (Smith, 1967), the use of Orff with exceptional children (Bevans, 1969), urban children (Mittleman, 1969), and deaf children (Birkenshaw, 1965).

A recently completed work documented the specific activities used in the Orff-Schulwerk approach (Munsen, 1986). This case study developed a description and analysis of an Orff program. The purposes were to assess the amount of time spent in active participation in music activities, students' ability in rhythmic and melodic question/answer improvisation, and student attitudes. In order to assess the time spent in music activities, a Musical Activity Record was developed. This form was used to record the amount of time that students were actively involved in singing, playing, moving, creating, listening, and reading. The teaching emphasis was on singing and playing in the primary grades, and playing, listening and creating in the intermediate grade, with improvisation activity peaking in the third grade.

Many researchers have examined the use of time in music classrooms, including Wagner and Strule (1979), who developed a Musical Activities Log in order to observe the use of time by beginning and experienced

elementary school music teachers, and Moore (1976), who developed the Music Teaching Interaction-Activities Form (MTIA). The MTIA has been used to examine the activities in elementary music classrooms (Moore, 1976, 1981; Moore & Bonney, 1987) and children's choir rehearsals (Moore, 1988). Both observation instruments allowed the investigators to record continuous events occurring chronologically and the number of seconds spent on each activity. The activities on which these investigators focused, which are of interest to the current study, were instruction, singing, discussion, playing instruments, listening, rhythmic activities, and movement.

Other research has focused on time spent in active versus passive instructional settings (Murray, 1974; Forsythe, 1977; Thurman, 1976; Yarbrough & Price, 1981) and teacher/student interactions (Kuhn, 1975; Madsen & Madsen, 1981; Moore, 1988; Moore & Bonney, 1987; Price, 1983; Yarbrough, 1975; Yarbrough & Price, 1989).

The purpose of this study was to develop an observation instrument that would serve to document activities in elementary school music classrooms and discriminate between those activities that are strongly emphasized in the Orff process and those activities that might be termed traditional. This instrument was then used, for validation and data collection, to observe and record the activities taking place in fourth grade music classes led by teachers who held Orff certification and those who did not. Using this documentation of these music teachers' classes, the data were then analyzed to summarize and compare the activities of the Orff-certified teachers and those who were to find what, if any, differences could be found.

Procedures

Subjects were 12 elementary school music specialists, who held state teaching certificates, with a minimum of three years teaching experience; six of whom held the minimum of a Level 1 certificate from the American Orff-Schulwerk Association, and six who did not. The teachers, all of whom were unaware of the purposes of this study, audiotape recorded one of their fourth grade glasses of choice, using personal cassette recorders. The classes ranged in duration from 20 to 30 minutes.

The audiotape recordings were analyzed by two independent observers using a modified version of the data collection instrument employed by Wagner and Strul (1979), that used information from the works of Moore (1976, 1981, 1988), Moore and Bonney (1987), and Munsen (1986) for the development of category operational definitions. Observers coded each activity (see Figure 1) on the basis of operational definitions. Observer agreement was computed for 33% of the observations by dividing agreements by agreements plus disagreements. Average agreement was .96, with a range of .94 to 1.00.

Figure 1

Music Classroom Activity Codes

PITCHED

Instrumental {•Pi}
- with/without echo
- with/without ostinato
- mallets (Orff, Non-Orff)
- other (i.e. recorder, autoharp)

Vocal {•Pv}
- with/without echo
- with/without ostinato

RHYTHM

Nonverbal {•Rn}
- with/without echo
- with/without ostinato
- body percussion
- unpitched percussion

Verbal {•Rv}
- with/without echo
- with/without ostinato

MOVEMENT {•MO}

IMPROVISATION/CREATIVITY (unprecedented student performance) {•IC}
- pitch
- rhythm
- movement
- instrumental
- speech

DISCUSSION {•DI}

LISTENING

Models (teacher, recordings) {•Lm}

Teacher talk {•Lt}

Observational categories were operationally defined as follows:

Pitched--activity with specified pitches as a component; either instrumental {Pi} or vocal {Pv}.

Rhythm--rhythm activities that do not employ pitch as a component; either nonverbal {Rn}, such as playing rhythm instruments or body percussion, or verbal {Rv} such as rhythm syllabling.

Movement--interpretive whole-body movements {MO}, such as dramatization or dance.

Improvisation/Creativity--unprecedented student performance {IC}, such as verbal or instrumental improvisation or composing in any manner.

Discussion--active student involvement in speaking {DI}, such as a response to teacher questioning or asking a relevant question.

Listening--passive student involvement in listening; either to models {Lm} such as teacher performance or recordings, or teacher talking {Lt} such as instruction or directions.

Each activity observed was timed, excluding time spent entering and preparing to begin class, and the time spent preparing to leave and leaving class. This resulted in a continuous log of classroom activities for each teacher ranking from 19 minutes and 12 seconds to 28 minutes and 13 seconds.

The time data were compiled into sub-categories (see Figure 1), thus each time the students sang in echo it was put in the sub-category of pitched, vocal, echo {Pve}, for the purposes of summary and analysis. Due to the varying length of classes, the amount of seconds spent in an activity category were converted to percentage of class time; a sum of the percentages of observed behaviors resulted in a total of 100% of the observation time for each class.

Results

The purposes of this study were to develop and implement an analysis instrument for classroom activities of Orff-certified teachers and those teachers who were not, and to use the observational data to compare their activities. To examine these activities, classes of six Orff- and six non-Orff-certified teachers' fourth grade classes were audiotape recorded and analyzed for frequency and duration of various activities. These data were compiled regarding classroom activities and compared to ascertain any differences between the two groups of teachers. The following are summaries and analyses of the data for these activities. Due to differing class period lengths, the time spent on each activity was converted to percentage of total classroom time for each class.

Table 1 is a summary of the mean percentages of class time. The table includes a division of the data into Orff student-centered (active), non-Orff student-centered (active) and teacher-centered activities (passive) for classes taught by Orff- and non-Orff-certified teachers. All echo, ostinati, rhythmic verbal, body percussion, movement, and improvisation/creativity student activities were considered Orff student activities due to the emphasis placed upon them by the process descriptions.

Any student activity, including discussion, which actively involved the students and did not include Orff activities, and all teacher-centered activities--students listening to models or teachers--were designated non-Orff.

Table 1

Mean Percentages of Class Time Spent on Orff and Non-Orff Activities

	Orff	Non-Orff		
Teacher Training	Student-Centered	Student-Centered	Teacher-Centered	Sum
Orff	31.91	28.56	39.53	68.09
Non-Orff	19.32	38.04	42.64	81.68

Due to the relatively small sample size, the Mann-Whitney U test was employed for statistical comparisons of the data for classes of Orff trained with non-Orff trained teachers. No significant differences ($p>.05$) were found for overall percentage of time in Orff activities ($U(6,6)=14$, $z=.48$), non-Orff student activities ($U(6,6)=17$, $z=.16$), or teacher activities ($U(6,6)=14$, $z=.64$).

In both types of classes, the students were actively involved approximately 60% of the time while teacher-centered passive activities--listening to models or teacher --accounted for approximately 40% of the time. Although there was not a significant difference between groups, the Orff-certified teachers tended to spend more time in student-centered Orff activities and less time in non-Orff student activities than did the teachers who were not Orff-certified.

A summary of the student activities in Orff and non-Orff classes is listed in Table 2. Included for each activity are the number of classes in which it occurred and the mean percentage of class time that it occupied. Many instances of combined activities, such as pitched verbal (singing) with rhythm nonverbal (body percussion) and pitched percussion instruments (ostinato), were found. In these instances, the total percentage of time spent in a combination of activities was included in the summary percentage for each individual activity that comprised the combination; this resulted in a sum greater than 100% for the percentages of time spent in individual activities.

Table 2

Mean Percentages of Time Spent in Activities in Orff and Non-Orff Class

Activity	Orff		Non-Orff	
	n	Mean %	*n*	Mean %
Pitched - Instruments	3	12.50	2	23.28*
Pitched - Verbal	6	24.92	6	29.32
Rhythm - Nonverbal	6	17.41	4	19.56
Rhythm - Verbal	5	16.52	3	4.09*
Movement	1	4.84	2	8.42
Improvisation/Creativity	0	0.00	1	6.82
Discussion	6	16.17	5	16.67
Listening - Models	6	6.93	6	5.12
Listening - Teachers	6	32.60	6	37.52
Echo	6	13.31	4	6.80*
Ostinato	1	14.19	2	9.48
Activity Combinations	5	22.92	4	19.56

*$p < .05$

The mean percentage of time spent in each of the classroom activities of Orff-certified teachers and those who were not Orff-certified were compared by means of the Mann-Whitney U test. Three comparisons yielded significant differences ($p<.05$) for mean percentage of time using pitched instruments ($U(3,2)=0$, $z=1.73$), rhythm-verbal ($U(5,3)=1$, $z=1.94$), and echo ($U(6,4)=3$, $z=1.92$).

Less than half of the teachers used pitched instruments, with three Orff-certified teachers using them for a significantly smaller proportion of class time than the two non-Orff-certified teachers. Orff teachers used significantly more verbal rhythmic and echoing activities, both of which are emphasized in the Orff-Schulwerk process.

There appeared to be a slight trend towards the use of a greater variety of activities by the Orff-certified teachers. Given this increased number of activities, it should be noted that in a large number of Orff as well as non-Orff classes there were no movement, improvisation/creativity, or ostinati activities; all of which are highly recommended techniques in Orff-Schulwerk and other music education methodologies.

Discussion

The purposes of this study were twofold: to develop an instrument sensitive to the activities emphasized by the Orff-Schulwerk literature as well as previous elementary school music classroom research, and to use the instrument to compare Orff-certified teachers with those who are not. The instrument was found to be reliable and useful.

No significant differences were found between Orff- and non-Orff-certified teachers' percentage of classroom time involved in student-centered Orff, non-Orff, or teacher-centered activities. There are a number of possible explanations for these results. It is possible that the activities identified in this study as Orff may include some that are not, or did not include some that are Orff activities. One must also consider that elementary school music teachers do not operate in a vacuum and may be using processes such as Orff-Schulwerk for their classroom techniques even if they are not Orff-certified. The teachers in this study were not asked questions regarding the sources of their classroom activities or their personal philosophies of music education for elementary school students.

It also can not be neglected that studying a particular concept does not necessarily lead to its implementation. It may be that the Orff certification is more indicative of completion of certain studies (knowledge), and this may or may not have a resultant effect on teachers' classroom activities (behaviors). The Orff-certified teachers may not perceive themselves as Orff-style teachers, conversely the non-Orff teachers may perceive themselves as Orff-style teachers even though they lack the certification.

The Orff-Schulwerk process is not mutually exclusive of other strategies, indeed in some instances it has been recommended that the process be combined with their methods such as Kodaly (Glasgow & Hamreus, 1969; Wheeler & Raebeck, 1977). This combining of processes might also account for the lack of differences between Orff-certified teachers and those who were not.

In the analysis of the individual categories, significant differences were found between the two groups of teachers for the mean percentage of time spent in rhythm verbal and echo activities, with Orff-certified teachers using significantly more of both. The use of rhythmic verbal and echo activities are two areas that are stressed in the Orff-Schulwerk process. Nonverbal rhythm activities are also emphasized in the Orff-Schulwerk process but their use was not found to be significantly different between the two groups. However, it was observed that the teachers who were not Orff-certified used hand clapping almost exclusively while the Orff-certified teachers used a variety of body percussion in addition to hand clapping.

It has been found that students are less attentive while involved in passive activities versus those requiring active participation (Forsythe, 1977; Madsen & Alley, 1979; Madsen, Wolfe, & Madsen, 1975; Sims, 1986; Yarbrough & Price, 1981). In the present study both groups of teachers spent approximately 40% of the time on listening (passive) activities. Over 80% of the listening time was spent in teacher talk, which was the single activity occupying the largest percentage of time. This replicates data from other elementary school music studies that found approximately 40% of third and fifth grade classes devoted to non-musical activities (Munsen, 1986), and 39% to 46% of class time devoted to passive activities (Moore, 1981; Moore & Bonney, 1987).

While the predominance of teacher talk is of concern, there are some student activities that may be of concern due to their lack of inclusion in the music classes. Movement occupied a range of 5% to 11% of class time and was found in only 3 of the 12 classes, in contrast to More and Bonney (1987) who found a mean

of 165 of the class time devoted to this activity. In the present study, improvisation/creativity was only found in one class. Both movement and improvisation/creativity are activities that are universally stressed in elementary school music teacher education programs. These activities also receive a great deal of emphasis and were found to exist in an Orff-Schulwerk program (Munsen, 1986). It was also surprising to find that only one of the Orff-certified teachers made use of ostinati; a technique associated with the Orff-Schulwerk process.

Given the sample size and confines of the observation instrument, one must use caution in drawing any conclusions solely on the basis of these data. However, given the lack of documentation of the Orff-Schulwerk process and activities, an initial data collection was needed, as is more research in this area. Also, the use of videotape recordings might enhance the quantity and quality of the data collected, including information regarding nonverbal and movement activities.

Orff-Schulwerk is a process and not strictly several discrete activities. It may be that an extension of this work--which includes a means of analyzing the process as a sequence of events--would be appropriate and useful as both a data-gathering and pedagogical tool. Orff-certified teachers teaching their best lessons using appropriate Orff-Schulwerk strategies might be recorded and analyzed in order to extract the process that is perceived to be Orff-Schulwerk. These observational analyses might be correlated with Orff specialists' ratings of the lessons in an attempt to isolate variables that are considered critical to good Orff models.

There is a great deal to be done to operationally define the Orff-Schulwerk process. This must be in

conjunction with the documentation of activities that occur in classes taught with the process. After the process is documented, it can then be examined for its effect on student outcomes. Given the paucity of documentation of the Orff-Schulwerk process classroom activities and their effects, it is clear that more work is needed in examining this methodology that is widely promoted and used in music education.

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CARLOS CHAVEZ' CURRICULUM FOR TEACHING ORCHESTRAL CONDUCTING

Lewis B. Hilton

Carlos Chavez (1899-1978) was and remains certainly Mexico's preeminent composer, conductor and music educator and one of the most important throughout the world. He conducted virtually every major symphony orchestra worldwide and his compositions have been played and recorded by major orchestras in Europe and the United States. He was director for many years of the National Conservatory in Mexico City and was active in promoting music for young people and the working class throughout his life. One of his many undertakings as a writer was his role as cofounder and editor of the periodical Nuestra Musica (Our Music) which espoused and promoted the cause of contemporary composers of Mexico and elsewhere while also publishing scholarly articles on the works of composers as diverse as Mendelssohn and Jesus Bal Y Gay.

I was fortunate to be invited to his home in Mexico City in the late sixties where he told me about his work on behalf of young talent (especially native Indian) and what should constitute their musical education. Among other items of great value which he gave me was a complete set of Nuestra Musica which had ceased publication because of financial difficulties. In four of these issues was a complete outline and description of his dream of instituting at the Conservatory a curriculum for training future orchestral conductors, an ambition which remained largely unfulfilled. The scope and depth of this course of study he recommended has not been

duplicated in any other proposals of which I have knowledge, and certainly nothing so complete has been put into practice anywhere in the world. The brief remarks which follow are a necessarily skimpy outline of the content of his articles. Although some of the recommendations may seem utopian and visionary in the extreme, they can serve as a challenging point of view for all those who are engaged in the teaching of conducting as well as practicing instrumental conductors.

The following pages constitute an attempt to give the salient features of his papers in Nuestra Musica.

INICIACION A LA DIRECCION DE ORQUESTA
(The training of the orchestral conductor) by Carlos Chavez

The proposed curriculum is divided into fifteen sections.

I. Melodic ear training
II. Harmonic ear training
III. Melodic dictation using orchestral instruments
IV. Rhythmic training
V. Rhythmic dictation
VI. Knowledge of orchestral instruments
VII. Study of instrumentation and orchestration
VIII. Formal and thematic knowledge of scores
IX. Harmonic and contrapuntal knowledge of scores
X. Study and practice in the mechanical aspects of conducting
a. the left hand; b. the beat
(This section was apparently never published)
XI. Discussion of the psychological aspects of orchestral conducting
XII. Memory training--not published

XIII. Training in musicality--not published
XIV. The emotions and imagination--not published
XV. Interpretation--not published
(I am unable to find these last four sections in any other publication. They are not in Nuestra Musica.)

I. Melodic Ear Training

Chavez suggests that the first five divisions of the curriculum should be started when the student is very young, as young as twelve or thirteen.

The basis for all of the ear training must be the acquisition of perfect pitch. Chavez insisted that the use of movable do or any system of solfege or dictation based on anything less was a complete waste of time and in fact counterproductive. Absolute pitch was to be attained by listening repeatedly to reiterated pitches, starting with A 440, played on any available instrument such as a piano or harmonium, then going methodically to all the other pitches of the chromatic scale and in all registers. Most of this training could be done independently of a classroom situation. Any provision for a reference pitch was to be assiduously avoided. Equally condemned was reliance on tonal materials. Sight singing materials should utilize all twelve pitches of the chromatic scale.

II. Harmonic Ear Training

After pitch recognition and the ability to sing at will any pitch were mastered, the student would progress to listening to simultaneities, first two, then more, with the emphasis again upon absolute pitch. The recognition of intervals was to be insufficient; the student was to be

able to name any heard pitches and/or be able to sing any combination of pitches without a reference tone. Chavez acknowledged the difficulty of the task and set no time limit (perhaps years) but he remained confident that, except for the student with very little talent, success would ultimately reward the efforts. Chavez also acknowledged that he had had little success convincing his own faculty at the National Conservatory that the use of such texts as those by Lavignac and Rieman was totally inadequate.

III. Melodic Dictation Using Orchestral Instruments

Again without any reference pitch, the student (in a classroom or similar situation) was to listen to melodies, then simultaneities, played singly by each member of the woodwind, brass, string and pitched percussion families of instruments, then by two in the family, by threes in the same family, etc., by threes in contrasting families, etc. until every permutation had been used. He suggested that a total of seventeen instruments was necessary to complete this aspect of the conductor's ear training, acknowledging the difficulty that the typical conservatory or music department might have in making all this performing personnel available on a regular basis. The availability of the following players was considered necessary: four woodwinds, four brasses, four strings, four pitched percussion and harp. He concluded this section by writing:

> Seventeen instruments will be a completely satisfactory limit, since it will include almost all the different timbres of the orchestra. We would lack only the massed instrument sound of the complete orchestra, something which would be difficult to have available in the classroom [!] But harmonic dictation

such as I have proposed would be an extraordinarily complete introduction to the ear training of the student conductor. (The added exclamation point above is by the translator. It should be noted, of course, that when this was written by Chavez, the ready availability of taped ear training was not known. The proposal would not be early so difficult to meet today.)

IV. Rhythmic Training and V. Rhythmic Dictation

Chavez spends more time on this aspect of the curriculum than any other part, something which will come as no surprise to those who know certain of his scores, especially some of the earlier ones such as the Toccata for Percussion instruments and his Sinfonia India. His starting point, as in the suggestions for developing melodic and harmonic skills, is an absolute, in this case, absolute rhythm. The student must gain the ability, through reiterated listening over an indeterminate time period, to a metronome set at every possible tempo. The result of this study should be the ability to beat any tempo upon demand, e.g. sixty beats per minute, forty beats per minute, etc., with no reference tempo given.

Next, the student should practice changing tempi of his beat, e.g. quarter notes at sixty to quarter notes at eighty-eight etc. Chavez spent considerable time criticizing those critics and teachers who belittle the "simple" ability to bat a totally regular beat at any given time. He takes to task, for example, a critic of Toscannini who suggested that Toscannini's man ability was "simply" to keep a regular tempo. This was the very foundation of Toscannini's great gifts, according to Chavez, and was a talent shared by surprisingly few

conductors, including some of the most famous. He cited the unfortunate practice of many conductors who claimed that they "felt" a gradual change in tempo, from 68 to 88, for example, or from allegro to andante, when in fact the score clearly called for an immediate change. The result, according to Chavez, was a muddiness apparent to the orchestra and the audience alike without most knowing what the cause of this inertia was, often blaming the orchestra when in fact it was the fault of the conductor.

Chavez also devoted considerable space to an analytical description of the elements of musical rhythm, using a specialized Spanish vocabulary which is somewhat difficult to translate. He concluded this section of the essay by comparing music without a regular or misurata framework to the mollusk or invertebrate. Music without its rhythmic underpinning, he said, was like the most primitive animal in the evolutionary scale. Music had become misurata in the Baroque period or before but, he suggested, many conductors have themselves remained non misuratas.

VI.

A knowledge of all the orchestral instruments should be gained by study of each of the four orchestral families, plus harp and piano. He stressed the importance of piano study. Continuous practice on these instruments should be maintained throughout the conductor's professional life, having started when he was of grade school age if at all possible.

VII.

Instrumentation and orchestration is as important to the conductor as to the composer, according to Chavez, and their study should parallel that of the composer's except that orchestrations by the conductor could be of others' works rather than his own.

VIII. Formal and Thematic Knowledge of Scores

Formal score study should commence with the student's identifying the larger sections e.g. ABA, then motivic and germinal aspects, and writing identifying marks in his own copies of the scores. Incidentally, according to those who knew him, Chavez continued this practice himself throughout his conducting career, as well as memorizing and marking into the scores the harmonic analysis which he always undertook when learning a new score.

IX. ??

X. Study and practice in the mechanical aspects of conducting
a. the left hand; b. the beat

This section was apparently not published, but he does discuss aspects of physical movement in the sections dealing with rhythm. In the United States, at least, the mechanics of conducting patterns and associated gestures generally occupy a much more prominent place in the conducting curriculum than that assigned by Chavez. Perhaps he felt that it was of less importance than other aspects of training because it could be learned and put into practice relatively readily after the apprentice was thoroughly schooled in musicianship. He does not mention conducting patterns per se, perhaps assuming

that they are too well known to need description, but he does spend considerable time on suggestions for developing independence of hands, arms, and other parts of the body. He believed that a study of Jacques-Dalcroze's eurhythmics would be beneficial to the conductor, writing at one point that in this aspect of his training, the conductor enters into the realm of the dance.

He discusses the need for exercises in conducting two to a beat, three to a beat, etc., then three against two, etc., changing from 4/4 to 5/4, from 3/8 to 5/4, from 4/4 andante to 4/4 vivo, from 3/8 presto to 5/4 largo, etc. etc. The duty of the conductor to keep all proportions correct, especially in rubati passages, is discussed. He emphasizes what he felt was the right and duty of the conductor to take great liberties in terms of tempo changes at times, but only after a complete musical understanding of the score.

XI. Discussion of the Psychological Aspects of Orchestral Conducting

In this section, Chavez probably reveals most about himself and some of the reasons why he was celebrated as one of the truly great orchestral conductors.

He begins the section by reminding us that, as conductors, we are dealing first of all with human beings, with all the human frailties and in addition, some special problems peculiar to musicians working in a large group. Each one, he writes, has his personal problems; economic, educational, psychological, professional, etc., and he brings them all to the rehearsal and performance. The orchestral musicians tends to be "centrifugal," tending to distance himself from the group in an effort

to maintain his own musical and personal identity. He consciously or unconsciously resents having to sublimate his own musical personality. And he asks himself, "Who is this man, this conductor, who is going to direct me, to order me about, to dispose of me?"

Before the conductor can be to accomplish this role as a musical director, he must find ways to rise above, while remaining sympathetic to, all of these personal problems. Above all, he must not meet frailty with frailty. He must establish an indisputable authority from the very beginning and this can only be based on his total mastery of all the skills of musicianship and conducting. He can not fake it! ("Thank God," says Chavez.)

Furthermore, a dictatorial mien can only lead to disaster. The successful conductor does not order, he convinces. He should always bear in mind that there is a natural equality of interests and roles among the performers and the director. The roles are different, but it is not a question of superior and inferior tasks. The conductor must inevitably have the "concentration of power." This is inherent in his job. His equanimity will be met with equanimity; his ill humor will be returned. The conductor must not expect a psychological paradise in spite of his best efforts. On the contrary, he must learn to stifle his screams of frustration or anger. Ideally, the conductor never loses patience. Difficult, says Chavez, but not impossible.

Many famous conductors have been known for their temper tantrums, hair tearing, leaving the podium in a huff, etc. These acts, Chavez was inclined to dismiss as being theatrics, publicity stunts, and he especially warns the unestablished conductor to eschew any such

mannerisms. The famous ones may have a "mattress to cushion the fall" that such antics may cause, but certainly not the unknown one. Instability and neurasthenia on the part of the conductor are to be regarded as obstacles in the way of his success, not means to gaining publicity.

The conductor, master of himself, serene, self assured, firm, will transmit all of these qualities to the orchestra. And he has no chance of having any of these necessary characteristics unless he comes to the podium as a master of his art in every respect. Any attempt at bluff will be recognized as such and lead to inevitable defeat.

"Finally," Chavez wrote, "we must consider the all important factor of constant eye contact, visual communication between the conductor and every member of the orchestra, something which one might assume to be commonplace but is too often lacking."

"In all the orchestras of the world, even in the best, the musicians do not watch the conductor, or at least insufficiently." This may be the result of taking the line of least resistance, of routine or forgetfulness. The musician may believe that he does not need to see, only to hear. But if he performs on the basis of what he hears, he is not following the conductor but the mass or weight of the orchestra which leads to inevitable sloppiness. Each performer must follow only the director.

"By visual communication, and only in this way, is it possible for the director to bring about the conditions which promote clean execution, whether it be attacks, gradual or sudden changes of tempi, proper balance of the various sections of the orchestra, etc. etc., all sina

qua non of the conductor's task: to transmit to the musicians his spirit, his emotions, his musical impulses, at each moment of performance."

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INICIACION AL LA DIRECION DE ORQUESTA
Carlos Chavez
PREPARATION OF THE ORCHESTRAL DIRECTOR

Translated by Lewis B. Hylton

General Considerations

The Problems

If the problems involved in reproduction of music-reproduction in the sense of recreation seem multiple and complex when we are dealing with performance on a single instrument, when we consider these problems in terms of an orchestra, they are not just multiplied by the number of performers involved, but the whole nature of the problems changes drastically; in the first instance, the artist who is recreating plays the very music in question on his own instrument; in the second instance, the interpreting, or recreating artist is not performing it, but rather he is governing and giving life to the performance by a group of individuals, who, by this very circumstance, find themselves in a situation sui generis (a unique situation).

When performing in an orchestra, the instrumentalists surrender their primary responsibility, that of interpretation, and allow it to become that of the Director. Therefore he becomes responsible for everything relating to balance, phrasing, and melodic and rhythmic factors. In accepting all these interpretative duties, the director assumes the role of the animator, i.e. the director has been given, as it were, the musical initiative and artistic personalities of the orchestral

members. They have, in fact, surrendered them to the conductor.

To handle these responsibilities, the director, in addition to having technical and artistic mastery, must possess still another attribute of a psychological nature which will enable him to dominate and overcome an infinity of complex problems arising from interpersonal relations; the interaction of a group of human beings.

Only the possession by the director of this attribute will give him, in the final analysis, the power of conviction, the indispensable authority to fulfill his function. This authority he must earn by himself and keep it. No one gives it to him or takes it away.

A director is a director, whether he be in politics, a corporate head of philharmonic society, a secretary of state, or, in this case, the director of an orchestra. The indispensable quality of the orchestral director is his ability to demonstrate his leadership capacities before the orchestral body. Only this gives him the authority he needs and therefore the possibility of accomplishing his mission.

At the same time, the conductor must be an educator, a farmer, a sower of seeds, a transmitter. All of his technical skills will be for naught without these qualities.

Thus it is that the orchestral director becomes a teacher when he assumes the role of the conductor i.e. the guide and educator.

The work of the orchestral director furthermore can be viewed as two distinct functions: on the one hand that

of analysis, and on the other, of the synthesis of recreation.

The first involves knowledge of the orchestral medium (instruments and their combinations), the development of hearing, the development of the mechanics of conducting; the theoretical knowledge of thematic, melodic, harmonic and instrumental timbres.

The second, that of the synthesis of recreation, depends on his interpretative abilities which, perhaps unconsciously, is a result of all the analytic studies activated by the emotions and imagination of the conductor.

Having become aware of all these problems, the inevitable question occurs: how does one go about solving these problems? Is there some method of preparing to meet them? If there is, what form does it take? How does one resolve the theoretical and practical problems i.e. up to what point must the aspiring director prepare himself before taking on the director's role?

Here then are the problems of preparing the director, problems which must be surmounted in such an institution as the National Conservatory by means of specialized and advanced studies.

The Education of the Orchestral Director

Is it possible and necessary to teach methodically the skills of orchestral conducting?

The answer is yes. It is absolutely essential that this be done. The more complex and difficult the materials

are, the more essential it is that the student subject himself to a methodical preparation.

And while it is perfectly possible to acquire such an education, it is obviously difficult and costly.

It should always be remembered that the study of conducting, as any other musical skill, can only serve to improve the innate abilities of the student. No one can give to the student a talent which he does not naturally possess.

Given the great complexity of the functions of the conductor, the specialized studies will be of enormous benefit even to the student with great natural talent, since he will, as a result, be able to develop more quickly and effectively his innate faculties.

Yet up to now, little has been done in this area, the teaching of conducting.

In general, one can say that the conductor's art has been considered a private education for the very few, perhaps owing precisely to the difficult of the very problems involved.

In Berlioz' treatise, Instrumentation and Orchestration, there is an appendix entitled "the orchestral director, the theory in his art." Here we find an excellent discussion of many of the general problems of the artistic responsibilities of the conductor; excellent advice on some concrete problems, and even the exposition of certain principles of baton techniques.

Wagner wrote a little text entitled On Conducting, and Felix Weingartner another, entitled On the Art of Conducting.

These last two little works are of great historical interest. In reality, they touch on differing and very personal points of view regarding interpretation to give to certain works as well as justified expressions of sorrow concerning transgressions committed by other conductors in the direction of both classical and modern scores.

But no one has taken up the problem of how to resolve methodically the manifold problems involved until the work of Hermann Scherchen which was published in Germany in 1929 and works (cited by Scherchen) by Georg Schuneman "Handbook of Conducting," and Cahn-Sperer "Manual of Conducting." (Scherchen, Hermann "Handbook of Conducting" translated from the German by M. D. Calvocaroessi, Oxford University Press, London: Humphrey Milford, first impression July 1933, second impression August 1935.)

The work by Scherchen is of great interest. It establishes the need for specific study of orchestral direction and for theoretical knowledge before practice in actual conducting. He gives some precise suggestions, although they are not detailed or systematic in respect to how a curriculum should be set up, and arrives at a somewhat curious conclusion: "I have taught some students who were able to demonstrate when first appearing before an orchestra, the ability to conduct a major orchestral work cleanly and intelligently without one single rehearsal."

Apart from some doubt as to the credibility of Scherchen's statement, I do not believe that this idea (of

a conductor's preparation) should be regarded as the desideratum since the implication seems to be that theory and practice should be separated for a long time, a circumstance which, as well shall see a bit later, is not likely to bring about good results.

Some conservatories and university music departments in the United States have established special curricula for the conductor, but neither Scherchen's publication or the curricula in these schools in United States has resulted in a truly systematic or complete solution to the problem.

Paul Taffanel, a professor at the Paris Conservatory, asks a question worthy of our consideration. "Is it possible to teach the art of conducting?"

For a number of years this has been a question seriously considered by a number of interested artists who have hoped to create an orchestral direction class at the Conservatory.

It may not be a cause for great regret that this plan has not yet been realized because the results could be highly problematical.

Where, then, are to be found the correct precepts of this art? Which conductor feels sufficiently certain of his ability to teach clearly and efficaciously the infinity of skills which go into the interpretation of a musical work?

To master an instrument, to surmount the difficulties in instrumental performance, it is essential to practice constantly. There is the same need for practice for the conductor. And here we encounter a veritable paradox. Since it is manifestly impossible to have an orchestra

always available on which conducting students can experiment in order to learn the complex art of conducting.

How is it possible, for example, to inculcate in students the qualities of *sang froid*, the presence of mind, so necessary when confronting a dangerous situation, a threat of imminent disaster, which the director will face from time to time?

These qualities, assuming that the student has them, will only be manifested at the actual occurrence of the situation and can not be produced at will.

How can we teach the multitude of complex gestures which must be learned, gestures which may only last for the wink of an eye and yet which have a very precise meaning, which are in fact, the very language of the conductor, but which are ineffective without their skillful use, and whose efficiency and value can not be realized without experimentation on a live orchestra?

What orchestra will submit itself to endless repetition of such and such a gesture by the apprentice conductor?

The obstacles confronting such a learning situation are innumerable, and, up to now, no conservatory or music school has tried to institute such a curriculum.

Moreover, it is true that none of the great conductors have been the beneficiaries of such an apprenticeship. Using the theoretical skills they have already acquired, they have owed their conducting skills only to two essential factors: their natural gifts and practice. (Lavignac, Albert and Laurence Lionel "Encyclopedia de la Musique et Dictionnaire du

Conservatoire" Libraire Delagrave, Paris, 1929 (translator's note--it is not clear from the Spanish text where this quotation begins or if there is a quotation.)

The remarks by Taffanel are very interesting and deserve our attention since they represent a point of view very widely held and deserve comment.

Since this is the case, let us examine them. To say that a discipline can not be taught because it is difficult and complex is a pessimistic and self defeating point of view. The complex art and science of surgery would then logically be unteachable.

If the material is difficult and complicated, so much more is the need to teach it, to systematize it, although clearly the pedagogy will be correlatively difficult and complicated.

There is no reason to deny the possibility of teaching of conducting just because the precepts of this art seemingly do not exist.

Since a formulated and systematized description of the art does not exist, it is clear that we must start by studying and analyzing its precepts in order eventually to formulate and systematize them.

Since practice is the decisive factor in learning conducting, it is evident that the theoretical aspects must be of less importance. [sic] Consequently, if the conductor arrives at his practice having already mastered the fundamental theoretical aspects of his art, he will be in a much more favorable position.

Yet there are many practical exercises which can be carried out without being in front of a full orchestra, but perhaps only a small ensemble. There is no reason to deprive the apprentice conductor of very useful experiences which he can have alone or under relatively easily obtainable conditions.

How about the question of *sang froid*? Certainly this can not be taught, at least not directly. But will not the prior study of theory, the experience of preliminary exercises which are possible, contribute to the student's feelings of security, his aplomb, his *sang froid*?

This is obviously true. The orchestral director, like the surgeon, needs aplomb, sang froid, and therein lies the reason for providing him with all the preparatory experiences possible. It is certainly no reason to deprive him of them.

It is true that none of today's orchestral directors have emerged from orchestral conducting classes. This is not proof that such classes are unnecessary; what it does prove is that the classes have not existed and, for better or worse, today's conductors are experience oriented; not the best possible, but in reality, the best there is at this time.

No one can deny that the most talented of conductors would benefit from specialized preparation and study.

The curriculum for the orchestral conductor should, as that of any other, be aimed at strengthening, encouraging and developing his natural gifts, and to facilitate and accelerate their development. This is the quality of a true education in any discipline. It will

benefit equally the average, the below average and the exceptional student.

But in no instance can educational experiences of any kind provide a student with a natural talent which he lacks, as I have said before.

I believe that our Conservatory should attempt to strike out on its own, but utilizing all the experiences acquired by other establishments and teachers from other countries as much as possible in seeking to resolve this problem of world wide concern, but whose resolution up to now has not been the beneficiary of much concerted effort.

We must experiment and make use of all the elements which we can muster for a solution.

The studies and suggestions presented here do not, naturally, pretend to solve all the problems of complete systematization of the teaching of orchestral conducting; they only are offered as one more contribution to the study of this very important but unexplored problem.

Outline of Studies

The curriculum for the aspiring orchestral conductor ought to include the following subjects:

I. Melodic ear training
II. Harmonic ear training
III. Melodic dictation using orchestral instruments
IV. Rhythmic training
V. Rhythmic dictation
VI. Knowledge of orchestral instruments
VII. Study of instrumentation and orchestration

VIII. Formal and thematic knowledge of scores
IX. Harmonic and contrapuntal knowledge of scores
X. Study and practice in the mechanical aspects of conducting
a. the left hand; b. the beat
(not published)
XI. Discussion of the psychological aspects of orchestral conducting
XII. Memory training--not published
XIII. Training in musicality--not published
XIV. The emotions and imagination--not published
XV. Interpretation--not published

I. Melodic Ear Training

This must be composed of a systematic and sequential series of studies which I will discuss below.

The first step will be the fixation in the ear i.e. the acquisition of absolute pitch.

Absolute pitch is the ability to identify immediately a pitch i.e. to be able to name a heard note.

The importance of this ability should need no explanation. It is a necessity easily understood.

Very well. How does one attain this essential skill?

The answer is very simple: one learns to recognize pitches in only one way, by listening to them.

Pitches become fixed in the ear as the result of frequent and reiterated listening.

First using the most common instruments, a piano or an organ, and later strings, woodwinds, brasses, the student must listen to, and then, sing a given pitch, for example an A given repeatedly, three or four sessions a day. It is a task which can be done in class or individually without taking away from any of his other studies.

He should work on the same pitch for one or two weeks and then go to each of the other eleven tones of the chromatic scale, working on each in the same way. He should repeat the entire exercise as necessary.

At the same time the student is working on developing absolute pitch, he should also listen to and sing melodic sequences of various intervals using all of the intervals of the chromatic scale (from the minor second to the major tenth) [sic].

These studies should take place, let us say, in the first year, before solfege and dictation is started. It is a serious mistake and venerable error to start solfege and dictation without having already developed absolute pitch and without having experience in singing the pitches he hears. Without these--absolute pitch development and singing ability--the others--solfege and dictation--will be a lost cause.

In the second year, the following goals should be pursued:

a. He should be able to sing individual pitches, or a series which are asked of him by name, or by reading them from music manuscript with no reference pitch being given. Only this can properly be called solfege, and

b. He should be able to recognize and write any individual pitches or any series of pitches which he hears. This, then, is dictation, properly speaking.

In this same second year the student will already have in fact started his melodic solfege and dictation training which he should continue, as from the beginning, using the twelve tone scale.

This we can call the study of absolute intervals, one step beyond the development of absolute pitch.

According to the innate ability of the student, he will obtain desirable results quickly or ore slowly; but except in the case of a lost cause and a complete lack of natural talent, good results will always be obtained if training is started in childhood and not abandoned later on.

It must be remembered that I have been talking about the use of the twelve tone scale. The studies which I will discuss, all, in reality, are based on solfege and dictation using all twelve tones. This is the only effective method. Dictation and solfege based on the diatonic scale is totally inadequate. In some ways it really harmful because the student becomes accustomed to relating his pitches to tonal functions, as we often see, so that he can only sight sing so long as he has a tonic center. As soon as the tonic center is not apparent, he loses all ability to sight sing.

No doubt there will be many critics of these comments by those who make use of tonal solfege which is traditional in such texts as those by Lavignac and

Riemann and which has been used in our own conservatory.

Years ago, when I was its director, I sought to change all this but failed because I was not able to convince the teachers that it was urgent and absolutely essential. Essential because in using tonal solfege, the student never develops absolute intervalization, or even absolute pitch. And without these abilities, the directors and performers are fighting against great odds.

It should be understood that this kind of ear training, indispensable as it is to the conductor, is not needed only by him. Quite the contrary. If I am talking about only the musical education of the conductor, it is because, unhappily, no such training is yet to be found in our Conservatory, and so far as I know, not in any other.

The study of solfege for all students of the conservatory should have the kind of training I have discussed in which case one can assume that the conducting student, when he enters conducting class, will have been properly prepared.

II. Harmonic Ear Training

This should also be part of the regular curriculum of the conservatory. Having mastered the skills described above, the student will next convert melodic intervals to simultaneities.

Later, having mastered all the simple intervals i.e. of two pitches, he will progress to simultaneities of two intervals, three, four, etc.

It must be understood that it is not a question of dealing with the science of harmony nor with any technical aspects or their practical applications.

We are dealing only with one question, that of hearing, and the fixation and recognition of any interval, by sound alone.

III. Orchestral Dictation

This should consist of the same kind of dictation training already discussed but done with all the instruments which comprise the symphonic orchestra. For this reason we can call it orchestral. Instrumental dictation is with any instruments; orchestral is with just the instruments of the orchestra.

We are discussing a special music education now, for the orchestral conducting student, which is based on the assumption that he has already acquired a melodic and harmonic background as described above.

The specific goal of this part of the conductor's preparation is to relate intonation (or pitch) with timbre.

Just as it is necessary for him to be able to recognize any pitch, so he must be systematically trained to recognize various timbres, at any pitch level.

The curriculum must include first a development of absolute timbre recognition i.e. all students must listen to each orchestral instrument in all ranges of its tessitura until he is totally familiar with the particular timbre of each instrument.

The second step in the course of study will consist of having the students listen to the same pitch played by various instruments.

During this comparative timbre study, the student will begin to fix in his memory the particularities of timbre, to be able to distinguish not only the differences of the same pitch produced by two instruments of different families but of comparable tessitura, for example, violin and clarinet, but of instruments of the same family but in different pitch ranges, i.e. low pitched violin sounds, high pitches of the contra bass which may be unisons.

The third part of the curriculum will consist of melodic dictation by single instruments, progressing from instrument to instrument through the timbres of the symphonic orchestra.

The fourth part will be the summit reached through all the earlier studies: harmonic dictation presented by all instruments of the orchestra.

This should be undertaken in the following manner:

Orchestral Harmonic Dictation

I.

With two equal instruments
With three equal instruments
With four equal instruments
(Until all of the instruments have been included)

II.

With two different instruments of the same family
With three different instruments of the same family
With four different instruments of the same family
(etc.)

III.

With two instruments of different families
With three instruments of different families
With four instruments of different families
(woodwinds, brass, strings, percussion, harp)

IV.

2 strings and 2 woodwinds (total of four)
3 strings and 3 woodwinds (total of six)
4 strings and 4 woodwinds (total of eight)
(use a mix of all possible combinations)

V.

2 strings, 2 woodwinds and 2 brasses (total of six)
3 strings, 3 woodwinds and 3 brasses (total of nine)
4 strings, 4 woodwinds and 4 brasses (total of twelve) (all permutations)

VI.

2 strings, 2 woodwinds, 2 brasses, 2 percussion (total of eight)
3 strings, 3 woodwinds, 3 brasses, 3 percussion (total of twelve)
4 strings, 4 woodwinds, 4 brasses, 4 percussion (total of sixteen)
4 strings, 4 woodwinds, 4 brasses, 4 percussion and harp (total of seventeen)

Seventeen instruments will be eminently satisfactory since it includes almost all of the various instrumental timbres of the orchestra.

At this point only the orchestra *en masse* will be lacking, something which can not easily be remedied in the classroom situation.

But the harmonic dictation described would be an extraordinarily complete initiation into conducting studies. The more arduous and complex listening tasks which the director will confront will have been basically mastered.

IV. Rhythmic Education

[Translator's note: The vocabulary used by Chavez in this paper seems so specialized that the Spanish words are included here with an approximate English equivalent.]

In order to avoid possible confusion due to different meanings attached to certain terms used in this section, I shall begin by offering a series of definitions:

(ritmo) Rhythm--From the Greek fluir [sic] is a quality which music possesses by virtue of natural periodic accents

(simetria) (literally: con medida) measured, with (medida) even mensuration

(compas) Accent patterns which are divisible into equal parts or (medidu) rhythmic unit(s) called (tiempos iguales) equal or symmetrical parts, each of which has only one (tiempo fuerte) strong accent

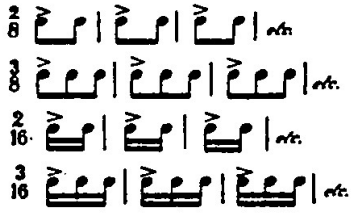
(tiemp fuerte) A strong accent. (Accento metrico) is the natural occurrence of the strong accent on the first note after the bar line. It can also be called the natural accent, rhythmic accent or prosodic accent.

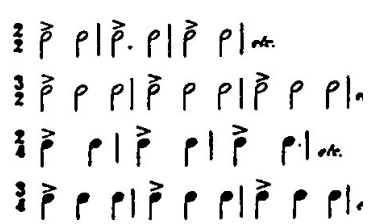
(accento metrico) Metric accent is the natural accentuation of the first note after a bar lie; it can also be called (acento natural) natural accent, or (acento prosodico) prosodic accent or natural accent.

(tiempo semifuerte) The half accent is that point in a musical phrase or unit where a natural accent of less strength (menor fuerza) falls. A tiempo semifuerte only appears immediately after a group of two or three tiempos which had a (tiempo fuerte) strong accent(s) [Translator's note: This appears to be a typographical error in the Spanish text and perhaps means a group of two or more tiempo fuertes appear only after a tiempo fuerte.]

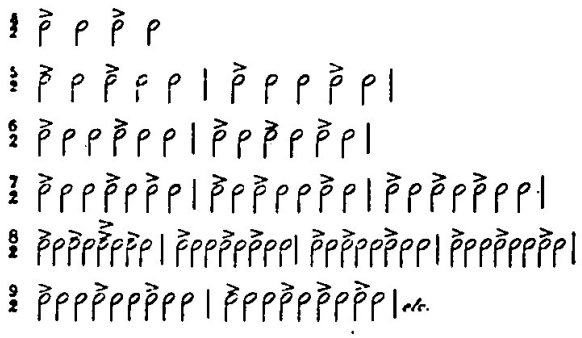
(tempo) movement speed (lento, moderato or vivo) of (tiempos) elements in the (compas) measure or rhythmic section

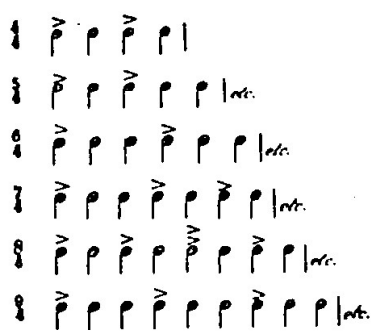
(Compas Simple) Simple mensuration or time where there is not more than one (Acento Natural) Natural Accent or (Tiempo Fuerte) strong accent per rhythmic unit.

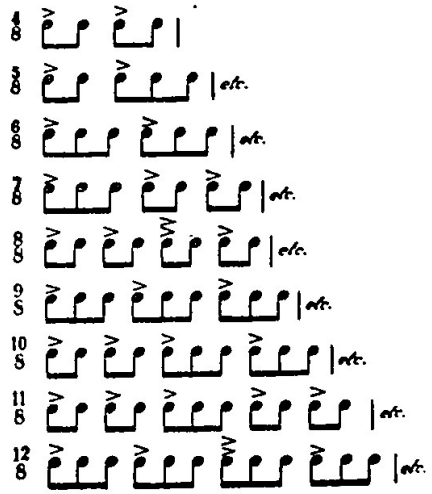




(Compas compuesto) Compound Time consists in the occurrence of one (Tiempo Fuerte) strong accent and one or more (Tiempos Semifuertes) weak accents.







Since symmetry is the foundation of rhythm, existing in (tiempos medidos) pulsations of equal importance or duration in the (tiempo) rhythmic unit, the ability of a musician to (medir) beat equal (tiempos) beats or time or time divisions, and his ability for gauging (tiempos iguales) equal time units is basic to his fundamental aptitude and ability rhythmically speaking.

(Sentida de la Simetria) Sense or feeling of symmetry--rhythm is to music as the skeleton is to a living organism. Music of (no Medida) no rhythmic pulsation or (mal medida) poorly accented is like an invertebrate, while (musica medida) properly accented is like a vertebrate.

Precisely the same significance that zoological evolution has where the mollusk evolved to the vertebrate, we should attach to musical evolution where music evolution where music developed and established a rhythmic organization which is based (en el compas) on the rhythmic phrase

(El Compas) is the unit of measurement in music which, divided into (Tiempos Iguales) equal rhythmic groupings, contain only one (fuerte) strong accent or (un solo tiempo con acento prosodico) one group with the prosodic or natural accent.

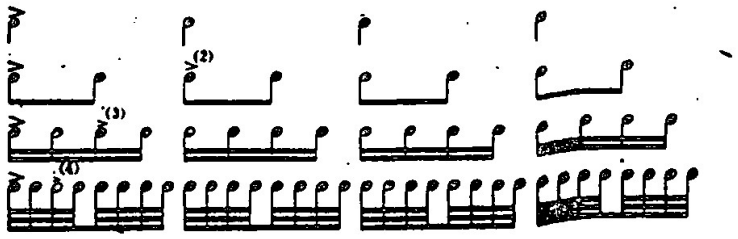
The establishment and the recognition of the (acentos iguales) and the recognition and knowledge of the (acentos regularmente colocados sobre ellos) accents regularly placed on them will be the means by which it becomes possible to make of music a rhythmic art, i.e. an art governed by the principles of symmetry in (el tiempo) time or movement.

Rhythm, musically speaking, is the symmetry of accentuation in the same way that symmetry in space is created in (la plastica) statuary or plastique in dance.

(El Ritmo Musical) musical rhythm in its most basic and precise meaning is to be found in the existence of (Tiempos Simetricos) symmetrical accentuation (con medida regular) with regular accentuation.

[Translator's note: The word correct or proper could be perhaps substituted for regular.]

In the same manner that the (Compas Unidad 1/1) unity of the measure is divided into (tiempos iguales) equal units, these are subdivided into equal fractions of the (tiempo) time unit in which are to be accents of regressive importance. The accent in (2) is less important than in (1), in (3) less than in (2), in (4) less than in (3); and so forth.



There are three aspects of rhythmic education. The first is the development of the (sentido de la simetria) sense of symmetry; the second is the acquisition of the feeling or notion of (duracion absoluta) absolute duration; and the third is the development of the ability to change from one tempo to another, from one rhythmic design to another i.e. rhythmic versatility. We shall be discussing each of these aspects.

I remember some years ago shortly after Toscanini had been appointed director of the New York Philharmonic, before his exceptional conducting talents were widely recognized, a writer (perhaps) distinguished (I do not recall if he was a music specialist) wrote an article in the American Mercury which denigrated Toscanini's ability. The writer concluded that Toscanini had only an astonishing ability to beat regular time. It appears that this opinion would be dismissed as worthless if it did not correspond to a widely held and mistaken notion which I must try to set right. This faculty which was observed in Toscanini as a defect is the very basis for his prodigious conducting talent. A musical structure can only be built if it has a foundation of this very rhythmic quality. Music then has unity and cohesion.

Great classical composers since Bach and especially since Beethoven have abandoned musica non misurata but, unfortunately, conductors themselves remain non misuratas.

Based on the unlimited liberty which everyone believes he has, the orchestral director with impunity conducts with an erratic beat. Yes, the orchestral director has the right to interpret, but only within the correct rhythmic relationships or proportions. He can

phrase with his baton, that is, yield at the right moment; he can bring about changes of tempi such as accelerandi and rallentandi as indicated but he must keep the correct relationships of notes to each other.

One would think that beating four equal beats, only that, four equal beats, would be the most common and obvious thing to do. But it is not so.

I have had the opportunity of observing this among both beginners and experienced conductors. And if it is difficult to maintain accuracy for just four beats, what will happen when it is a matter of a period, or a whole piece? The most common occurrence is a constant movement of accelerando, or ritardando, or both.

If, to the lack of feeling for eveness or symmetry on the part of the conductor, one adds the weight of the orchestra (something which I shall discuss more later), it is obvious that there is a great danger that correct rhythmic execution will be lacking.

It is not necessary that there be gross differences in duration between each tempo to bring about disastrous results. Just the most insignificant tempo fluctuations are enough to destroy rhythmic symmetry.

Immediately, the music weakens; it weakens without the majority of listeners knowing why. It lacks clarity, smoothness, articulation; it takes on a certain vagueness, muddiness, that the average listener can barely perceive consciously and does not know what the problem is; it is likely that he will blame the orchestra.

It is impossible that ninety to one hundred musicians in the orchestra would not respond to this vagueness.

Each one catches the beat as well as he can and his playing reflects the uncertainty of the conductor's beat.

One can only hope that future conductors will know that they have the liberty, the right, even the necessity, to know how to change tempi; to know how to make, in some cases, the most capricious rubati; to accelerate and ritard the tempi when it is suitable.

But the director must know that all these changes can be made only after he has totally mastered his skill in symmetry and rhythmic relationships; only then, not before.

The acquisition of this mastery is not more or less difficult than the attainment of any other of the conductor's skills. It is a question of practice.

The student must practice daily various exercises: (a) counting out loud; (b) moving one hand; (c) moving both; (d) moving one forearm; (e) moving both; (f) moving one whole arm; (g) moving both. All this must be done rhythmically, attempting always to maintain the exact tempo over a longer and longer period of time. The exercise should be started with a metronome and, after a length of time, rechecked against the metronome.

It is tedious work which requires patience, concentration and a high level of dedication.

Later, when the future conductor starts exercises with the baton, he should imagine himself in front of an orchestra and at the proper time in his studies (as we shall see), he should continue his tempo exercises daily in as varied a manner as possible i.e. beating a great

variety of meters, with various kinds of beat patterns with hands and arms, and in different tempi.

Absolute Rhythm

This is the equivalent of absolute pitch. it consists of the absolute memory for any given tempo in fractions of a minute. The conductor must be able to use from memory the metronomic scale as follows:

1/40 1/42 1/44 1/46 1/48 1/50 1/52 1/54 etc.

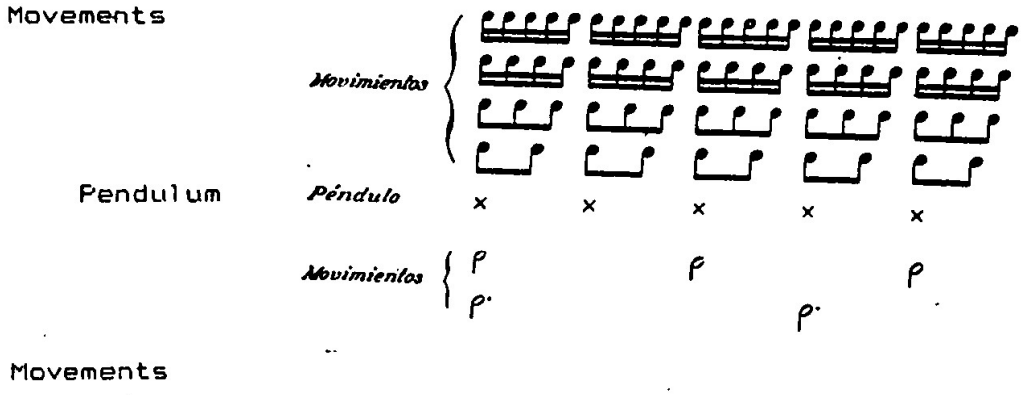
In order to attain this sense of absolute rhythm or tempo, he should proceed in the same manner as he did in mastering absolute pitch: he must fix in his mind absolute tempo by listening in order to become capable both of recognizing any beat tempo or producing it. He must work constantly, by sight and sound, watching and listening to a clock pendulum to fix in his mind the feeling for 1/60th of a minute i.e. one second.

Similarly, he must memorize all the tempi by proceeding methodically, one after another.

With the aid of a metronome or any pendulum whose tempi can be calibrated and controlled, he must spend an entire week on each tempo.

While listening to each beat of the pendulum, the student should follow precisely with various exercises: counting, beating with a finger on a table, moving a hand, walking, doing rhythmic calisthenics of all kinds.

All these strokes should be simple, double, triple, quadruple i.e. one, two, three, etc. strokes per pendulum beat:



In all these exercises which should be thought of as an integral rhythmic education of the body (voice, hands, arms, legs and other parts of the body, singly or in combination), the rhythmic exercises of Jacques-Dalcroze can play a significant role.

At this point, the orchestral director enters the realm of dance. He must master a real eurhythmia. He should have all movements under total control and be able to control separately and together all rhythms with all varieties of force, speed and duration.

For example: in Dalcroze eurhythmics, the goal is to develop the ability for moving arms and legs to a different rhythm, to move one arm smoothly and without force while the other moves forcibly and extensively, etc. etc.

By means of a similar method, although not as extensive as Dalcroze's, the conducting student should finally have: a complete rhythmic education of all and each part of his body, coordination of two or more parts, and an absolute sense of tempo and duration.

Rhythmic Versatility

Just as he must train himself to become a master of symmetry, the student must attain the ability to change from one movement to another, from one beat to another, one rhythmic pattern to another.

Having obtained absolute rhythm, the exercise involving sudden tempo changes will be relatively easy.

How often, even on the part of celebrated conductors, is displayed a regrettable ineptitude in this respect.

If the music goes from a Tempo Moderator to a sudden Presto, the conductor will start a faster beat but only little by little, in the course of six or eight beats, will he attain the Presto tempo. Why does he not beat Presto where it is indicated?

Probably, if he is asked, he will say "Because that is the way I feel it." But the truth will be something else. It will in all probability be because he can not change tempi suddenly.

The student must practice sudden changes in front of his imaginary orchestra, preceding according to a table of changes representing an almost exhaustive list of possible permutations and combinations, e.g.

60-72; 60-80; 60-84; 60-88; 60-92; etc.
60-58; 60-56; 60-54; 60-52; 60-50; etc.

and then precedes to substitutions of the base sixty each of the other metronomic markings.

From this point, the student must progress to the equally important study of Rallentandi in the following manner:

Move from ♪=116 to ♪=60 in the course of one beat, two beats, three beats, four beats, etc.

Then he will precede to various aspects of tempo changes such as accelerando. Having mastered tempo changes, the student then should go to beat pattern changes as follows:

a. Change beat without changing temp
b. Change beat and tempo simultaneously.

For example:

a. Andante 4/4/ to 3/4; 5/4 to 2/4;
b. Andante 4/4 to Vivo 5/8;
c. Moderato 3/4 to ? etc.

Continuing the development of rhythmic versatility, the student should study the most varied rhythmic changes: changes of tempo, of beat and notation at the same time.

He should start by studying notation changes i.e. the most varied kinds of notation and especially rests of different duration. In this case, the student should beat the pattern while following in his mind or singing (preferably the latter) these notation patterns.

Then he will proceed in the same manner with a study of notation and with a study of changes of notation and meter, e.g. "Dance of the Elegidas" in Rites of Spring of Stravinsky.

Finally, changes of notation, of meter and tempo in exercises especially devised for this purpose.

Still missing, in finalizing the rhythmic education of the conductor is a rhythmic dictation, which we will now discuss.

This is complementary to the study of melodic and harmonic dictation discussed above.

The student must be certain of his knowledge of all the rhythmic education discussed above. He must know: (a) metronomic tempi; (b) beat patterns; (c) rhythmic notation. Learning the material in this last section depends on his mastery of all the material above.

All rhythmic studies previously discussed must have been commenced at a very early age: from the time he enters the conservatory i.e. at the end of his sixth year in elementary school.

One can be certain that three years of assiduous study will produce astonishing results. Before even encountering an orchestra, he will have gradually but

surely acquired the skills and control he will need to lead one.

VI. Knowledge of Each Orchestral Instrument

No one doubts the need for the orchestral director's study of orchestral instruments; it should include study on an instrument of each of the instrumental groups: strings, woodwinds, brasses and percussion.

I would add that piano study is of enormous importance.

In a well organized curriculum, the student should begin the study of these five instruments at about the same time. The first year should include two of the instruments and the second year the other three; after that, all five should be studied simultaneously until the student has attained at least an intermediate skill; he should always continue practicing them from time to time.

VII. The Study of Instrumentation and Orchestration

With the instrumental study discussed above, started in the early years, the fourth year of his study should include formal studies of instrumentation and orchestration, using any or several of the excellent and numerous works on this subject.

It is as important for the conductor as for the composer to excel in this discipline, but substituting his arrangements of works by other composers and for other instruments for original compositions.

In orchestral studies, the student director will start to overcome one of the specific problems of the orchestral director: orchestral equilibrium, i.e. the establishment of the proper balance between the various individuals and sections of the orchestra.

In studying orchestration he will confront the problems theoretically. He is preparing himself to meet and solve the problems of balancing sonorities.

It is at this point that his prior studies in all the educational aspects discussed start to come together. Orchestration knowledge combined with a trained ear, rhythmic education and mastery of the physical aspects of conducting will prepare him at last to confront the reality of a live orchestra.

VIII. Formal and Theoretical Knowledge of the Score

From the first year, the student will have studied elementary music theory and from the second year, more advanced theory i.e. harmony, counterpoint, fugue and forms.

In the fourth year, score analysis is undertaken.

He should start by identifying the motifs that are the bases for each theme, then the themes that make up each section, then the sections which make up a movement, noting in each case the motivitic and thematic elements used in all their details and as they are developed, varied or modified.

Finally he should make a detailed written description or schema of the thematic and formal structure of each

work, notating ont he score itself the particulars of his analysis.

IX. Harmonic and Contrapuntal Knowledge of the Score

Having completed a thematic and formal score analysis, the student then turns to a harmonic and contrapuntal analysis. He will first write the chord identification and its function.

With the chord analysis available, the student will construct a diagram of the entire work and finally, he will add this to the thematic analysis so that he has a clear concept of the whole work.

Also at this point, the student, having made the analysis, will begin to have a sense of synthesis. The teacher must orient the student in this regard, helping him gain the sense of aesthetic unity of the work by means of bringing together all of its formal, harmonic, contrapuntal and pitch elements, which really means the orchestral work viewed in its totality.

X. (Not Published)

XI. Discussion of the Psychology of Orchestral Conducting

In the introductory section of this paper, I said that in addition to technical and artistic capacities, the orchestral conductor must have another attribute, a psychological make up that will enable him to manage, to dominate and overcome the various problems of human relations.

We must first bear in mind that, above all, the director is leading a large group of human beings; each one has his own characteristics, each one has his own personal problems, some emotional, some economic; each one has a good or bad but different education, good or bad, character, good or bad instruction, good or bad behavioral characteristics. And each one has his self esteem, or vanity, more or less elevated but certainly not always in a correct relation to his musical abilities.

Moreover, the orchestral musician is generally centrifugal; he tends to draw away, to distance himself mentally from the group, not only because of a natural impulse to follow the line of least resistance, but because of a sincere but unconscious individualistic impulse.

On the other hand, the musician is aware that he is only a little cell of the large group he can easily lose an awareness of his own personality, in a kind of underestimation of his relationship to the group, i.e. to play alone, as a soloist, a musician knows that the results, good or bad, depend exclusively on him; that is not the case when he is only one of the hundred playing.

There may also be economic factors which have particular influence on the psychology of the orchestral musician: a famous conductor said to me once, "It doesn't matter whether orchestral musicians get high or low salaries because they will always believe that they are underpaid."

I believe that the musicians are correct, just as are any other artists (not to mention composers), because we live in an economic and social environment which has not yet raised artist to an economic level which they deserve [and all are therefore underpaid].

Finally, I want to review briefly the general psychological characteristics of the musician, attitudes typical of the orchestral musician everywhere. The musician resents, unconsciously, automatically, the very directorship of the director, of any director. The musician thinks, perhaps without realizing it, although often very consciously: "Who is this man who has come to direct me, to order me about, to dispose of me?"

This, in a few words, is the framework of the mental attitude of the musician, which, generally speaking, prevails quite normally in orchestras, and which makes up the psychological problems confronting the conductor and upon whose solution depends totally the musical outcome.

The solution depends on just one factor: the conductor must establish an unquestioning authority over the musicians; and that must be established by his own personal capacities and characteristics.

There is only one way that this can be brought about, to establish his authority: he must convince the musicians from the beginning that he knows what he is doing; that he produces an ambiance of cooperation and work.

It is a great error on the part of many directors to adopt a dictatorial demeanor, an error which can only bring about the worst consequences: the musicians resent him and perform with little enthusiasm.

The director ought not give orders, but convince, reasonably. Only in this way can he avoid establishing

the mistaken and unfortunate situation of superior and inferior between himself and the musicians.

In this manner, the director will establish the correct climate, the only appropriate one, which is to make everyone feel that all of us together, without exception, are united to reach one goal: to serve music best.

In reality, in the orchestral ensemble, no one is inferior or superior; there is a natural quality. There are differences in function, and those of the director are usually the most arduous and complex, but there are really no different hierarchies.

The natural concentration power in the conductor is precisely what makes his attitude a decisive factor; the bad humor of the conductor produces a bad humor and resentment on the part of the musicians; his good humor and cordiality produce identical sentiments among the musicians.

And so it is, in order to direct, in order to bring about the supreme goal of the conductor (which is and must be only to realize magnificent and vibrant musical performance), he must not only control and unite the strictly musical elements which are necessary for success, but with equal aptitude and skill, successfully reconcile the variety and dissimilarity of the human factors which are to be found in the ensemble.

Just as it is certain that if a conductor does not demand perfection in musical matters that are incumbent on him that he will fail, so is it equally certain that he will fail (although this is not generally realized) if he can not control the psychological factors which I have discussed.

On the other hand, do not think that I envision a paradise of mutual understanding between the conductor and the musicians as a sina qua non of a situation that will bring about good results. No, the reality is not this paradise, unfortunately, but it should be the goal.

Reality, many times, even in the best of cases, is far from being the most desirable situation. How many times the conductor must stifle a scream and pull himself back together(!)

But this is only the inevitable and (necessarily) acceptable consequence of the imperfections of human nature; of its frailties and mood swings. But one should never accept this reality as unmeliorable.

Although it is reality, it should be viewed as something to be improved. Strictly speaking, the conductor should never lose his patience; he should never respond to the frailty of a musician with some of his own.

That is quite difficult but not impossible.

Many great and famous conductors are also well known for their bad dispositions. But one should not view these excesses of impatience as a rule but an exception. And, on the other hand, I am inclined to the belief that much of that behavior is calculated as a publicity stunt, a topic of conversation, a theatrical impersonation, e.g. tearing on one's clothing, shouting, leaving the rehearsal or concert in a temper tantrum because a musician made a mistake.

But while it is certain that these scenes are memorable, we must not consider them the rule instead of the exception. Moreover, these are luxuries that great masters can grant themselves, something not possible for the unestablished conductor. The fame of the well established is enough of a mattress to cushion what would otherwise be a disaster.

We must always bear in mind that neurasthenia or simple frequent instability is always a part of the orchestral scene, a disturbing element of prime importance.

We must never forget that the preparation and performance of a piece of music is a laborious work which requires concentration, a favorable attitude and love of the work and that these conditions can not be obtained by a furious and dictatorial conductor screaming at the orchestra. The negative attitude of a director is transmitted immediately to the musicians.

A positive attitude is equally transmitted. And it is precisely this power, many dimensional, automatic and absolute which constitutes the psychological means whereby the conductor truly directs an orchestra.

By his own dedication to the work, the conductor can seek to combat boredom and disinterest that routine can instill in the musicians. Only with a friendly demeanor will he get sincere cooperation and only in this kind of constructive environment, a demonstrated love of music and conscientious workmanship, will he be able to scale the heights of musical expression.

The level of an orchestra's performance is not automatically achieved, but the quality of performance is relative to these qualities of the conductor.

The self possessed director, serene, certain, firm, will transmit all these qualities to his orchestra and equally true, the orchestra will not have the qualities if the conductor lacks them.

It goes without saying that the director can only have these qualities of serenity, security and firmness when he is on top of his art and when he has complete mastery of the conducting skills.

Because you can not fake it in the realm of art, thank goodness, and firmness that is not based on talent and knowledge is only bluff.

Finally, I want to discuss a skill of great power for the conductor: visual communication between the director and members of the orchestra.

It is a communicative device of obvious practical and psychological value.

It might seem that it is so obvious that it would not have to be discussed at all, but this is not the case. It is one of many truisms which is not always remembered.

In all the orchestras of the world, even the greatest, the musicians do not look at the conductor, or at least not enough, unless he places great emphasis on it.

It is sometimes due to the line of least resistance, routine, or they forget.

The musician believes that he does not have to see because it is enough to hear. But if he performs according to what he hears he is not following the conductor, but he is moving along with the weight of the group. This is a much more serious fault than is generally realized.

The musicians, each one of the musicians, must follow precisely and only the director. Only in this situation is the conductor truly a director.

The musician follows the director by one means only, by watching every moment with his eyes wide open. Only with visual communication established is the conductor able to obtain the conditions which will bring about the mechanics of good performance, whether it be attack, gradual or sudden tempo changes, balance of sections and sonorities etc. etc. and moreover, only by this means is he able to transmit his musical ideas, his spirit, his impulses, his musical feelings in each moment of performance.

Se continuara [sic]
(To be continued)

Translator's note: This series of papers in Nuestra Musica remains incomplete. No further papers appeared (so far as I can discover). L.H.

AN INVESTIGATION OF THE PROFESSIONAL BACKGROUN ROLE, DUTIES AND LEADERSHIP SKILLS OF CHAIRS OF MUSIC EDUCATION PROGRAMS IN HIGHER EDUCATION

Joseph David Shirk
University of Missouri--Kansas City, 1989

Abstract

The purpose of this study was to identify the professional background, role, duties and leadership skills of chairs of music education programs in higher education.

Data were collected through a questionnaire containing five sections. Section one contained five descriptive questions concerning the subject's present position. Section two contained eight questions concerning the professional background and experience of the subject. Section three contained 26 questions designed to describe the role and duties characteristic of music education chairs. Section four contained five questions about the subject's present institution. Section five contained 24 questions soliciting the subject's opinion about leadership skills essential for a chair of music education.

Results from sections one through four were reported using descriptive statistics based upon frequencies, means, and percentages. Results from section five were based upon probability at the 95 percent confidence interval which was used to establish a hierarchy of music education leadership skills.

Results indicated that music education chairs are generally appointed by the head of the music unit for an indefinite duration. They generally possess a doctorate in music education with prior teaching experience in public schools as well as higher education. Their primary applied music area is usually in brass, voice, or keyboard, with teaching experience in band, or general music. They have generally published research related to music education and are presently involved in research. They participate in curriculum decisions, class load assignments, budget, and advisement. Teaching represents the largest percentage of the music education chairs' time, although they are very active in committees within and outside of the music department.

The largest percentage of chairs teach in institutions with 0 to 50 music education majors. The majority of chairs teach courses in the required music education curriculum with other faculty.

Music education chairs identify a variety of interpersonal skills as generally the most essential techniques in providing effective leadership within the music education program. Seven suggested recommendations for further study are listed at the conclusion of the study.

A STUDY TO ASCERTAIN THE COMMONLY PREFERRED PEDAGOGICAL DESCRIPTIONS OF FUNDAMENTALS OF BEGINNING OBOE

Janet Ruth Schlief Payne
Master of Arts, Southeast Missouri State University

Abstract

The purpose of this study was to ascertain oboe specialists' commonly preferred description of fundamentals of beginning oboe pedagogy. A survey of related literature yielded 112 different descriptions of playing position, embouchure, breath control, and tonguing. A survey instrument, including the 112 descriptions, was constructed and mailed to 100 oboe specialists, selected randomly from the 232 who are full-time faculty in colleges and universities in the United States as listed in the College Music Society Director of Music Faculties in Colleges and Universities, U.S. and Canada, 1989-91.

Results were tabulated from information supplied by 41 respondents (41%) who selected 45 (40%) of the 112 descriptions as preferred and 21 (19%) as unacceptable. Forty-six (41%) were deemed to be so controversial that they could not fit either category of preferred or unacceptable.

AN OBOE RECITAL OF SCANDINAVIAN MUSIC WITH ANALYSES

Johanna Louise Erdman
Master of Arts, Southeast Missouri State University

Abstract

This creative project in lieu of thesis consisted of a full-length recital with supporting paper which includes analyses of the first movements of five compositions for oboe and keyboard by Scandinavian composers. The program included: Trio Sonata in G minor (18th century) by Johan H. Roman, "Fantasy Pieces" (19th century) by Carl Nielsen, "Novelletter" (20th century) by Stig Gustav Schönberg, Sonata for Oboe and Piano (20th century) by Arne Mellnäs, and "Canto nordico" (20th century) by Erland von Koch. All composers are Swedish, except Nielson who is Danish.

The analyses are presented according to the following parameters: harmony (including texture), melody, rhythm, and form. Significant performance considerations are also discussed.

THE DEVELOPMENT OF THE COMMUNICATION SKILL EVALUATION INSTRUMENT: AN INSTRUMENT DESIGNED TO ASSESS THE COMMUNICATION SKILL OF THE CONDUCTOR IN THE CHORAL REHEARSAL

Nancy E. Osman, Doctorate of Musical Arts
University of Missouri--Kansas City

Abstract

The purpose of this study was to design the Communication Skill Evaluation Instrument (CSEI), administer it to amateur choral ensembles, and use the data to establish the efficacy of the instrument. The question examined was: Would a conductor who exhibited specific communication skills be judged as more effective by amateur choral members than a conductor who did not exhibit those skills?

Fifteen conductors validated the list of skills included on the CSEI. A videotape was prepared, and following a pilot study, the edited tape presented five conductors in a rehearsal situation, who represented both strong and weak communication skill.

The samples consisted of high school singers, amateur adult singers and experts. Approximately one half of the amateur samples used the CSEI in evaluating the five conductors. The other half ranked the conductors subjectively using no guide. The experts evaluated both objectively and subjectively.

The data were analyzed using a Pearson Correlation Coefficient formula, Kendall Coefficient of Concordance, ANOVA and MANOVA. Analysis of the data indicated that:

1. The subjective evaluations of the conductor's communication skill did correspond with the evaluation of subjects using the CSEI.

2. A significant association was found among CSEI scores for the various groups of high school, amateur adults, and experts.

3. A strong association was found among CSEI scores for a new group of thirty adult subjects.

4. Test-retest scores for a homogenous group of 30 adults showed a significant association.

5. The CSEI did allow a statistically reliable discrimination concerning both good and bad communicators in the choral rehearsal.

Based on the findings of this study, it was recommended that the CSEI might be used in developing undergraduate conducting curriculum, as a checklist for teachers and students of conducting to assess communication skill in the rehearsal, and for choral practitioners to use in assess their communication effectiveness with their own ensembles.

GEORGE FREDERICK ROOT AND HIS CIVIL WAR SONGS

Cheryl Ann Jackson
Central Missouri State University

Abstract

George Frederick Root (1820-1895) was one of the most prolific composers of American Civil War songs. Whereas many of his contemporaries were writing new words to old tunes, Root's songs were new both in music and text. His Civil War songs were of the typical parlor song genre which was very popular during the latter half of the nineteenth-century. His songs are truly American music rather than imitations of European music of the time.

The Civil War was a tragic era in American history. Through the songs, the people found an outlet for their emotions. In few periods in American history has a major conflict affected music as much as the Civil War. The parlor songs sung during the Civil War were accessible to the amateur musician and were sung not only at home in the parlor but on the battle-field as well, giving solace in a most tragic time.

The close study of several war songs of Root, along with the study of American music and American history, is the focus of this thesis.

BELA BARTOK AND THE SONATA FOR TWO PIANOS AND PERCUSSION

Roger Schupp
Central Missouri State University

Abstract

Bela Bartok was one of the most inventive and influential composers of the Twentieth century. The Sonata for Two Pianos and Percussion is not only a staple in the chamber music repertoire, but a trend setter in the use of percussion instruments in the chamber setting. This supporting document provides the following information pertinent to the sonata and its performance:

A short biography of Bartok.

A history of the Sonata for Two Pianos and Percussion with information regarding its commission, premiere performance, subsequent performances, and its reorchestration as the Concerto to Two Pianos, Percussion and Orchestra.

A brief analysis of the work with special emphasis on scoring techniques and thematic material. Musical examples are included.

An explanation of the use of Golden Section in the Sonata for Two Pianos and Percussion. Emphasis is put on the origin of the Golden Section and how it can be used to define the structure of the sonata.

Suggestions for percussionists on how to minimize difficulties in the preparation and performance of the Sonata for Two Pianos and Percussion.

Diagrams of possible state set-ups and a bibliography of writings about Bartok for those wishing to do further research into his life and compositions.

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The editorial committee welcomes contributions of a philosophical, historical or scientific nature which report the results of research pertinent in any way to instruction in music as carried on in the educational institutions of Missouri.

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