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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PRACTICES WHICH ARE COMMON TO SUCCESSFUL PUBLIC SCHOOL ORCHESTRA PROGRAMS

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PRACTICES WHICH ARE COMMON TO SUCCESSFUL

PUBLIC SCHOOL ORCHESTRA PROGRAMS

APPROVED BY

DISSERTATION COMMITTEE

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TABLE OF CONTENTS

		Page
LIST OF TABLES		v
Chapter		
I.	INTRODUCTION	1
II.	ENROLLMENT PRACTICES	4
III.	TEACHING METHODS	20
IV.	PRACTICES INVOLVING PHYSICAL FACILITIES	36
V.	REHEARSAL AND CONCERT PRACTICES	39
VI.	TEACHER QUALIFICATION DATA	50
VII.	RESPONDENTS' PROGRAM SUMMATIONS	59
VIII.	SUMMARY AND CONCLUSIONS	65
BIBLIOGRAPHY		82
APPENDIX - I		88
APPENDIX - II		94

LIST OF TABLES

Page

Table

1. Relationship Between District Size and Per Cent of Student Participation in the Stringed Instrument Program 5

2. Relationship Between District Size and Rate of Growth 8

3. Relationship Between District Size and the Grade Level for Starting Students in the Stringed Instrument Program 9

4. Number of Districts using each of the Five Listed Recruitment and Enrollment Avenues or a Combination of these Avenues 11

5. Avenues of Recruiting and Enrolling Stringed Instrument Students used by Forty-Seven Districts Grouped According to Size 12

6. Relationship Between the Avenues of Recruitment used in the Enrollment Process and Student Participation in the Stringed Instrument Program 13

7. Relationship Between the Avenues of Recruitment used in the Enrollment Process and the Per Cent of Increase in Student Participation in Stringed Instruments from 1961-62 through 66-67 14

8. Number of Districts using each of the Four Listed Instructional Types or a Combination of these Types 15

9. Relationship Between District Size and the Type of Instruction Employed 16

Table		Page
10.	Average Per Cent of Student Participation in Stringed Instrument Programs for each Type of Instruction used	17
11.	Relationship Between each Instructional Type used and the Per Cent of Increase in Student Participation from 1956-57 through 1966-67 and from 1961-62 through 1966-67	18
12.	Number of Districts using each of the Thirteen Listed Approaches or a Combination of these Approaches	20
13.	Average Per Cent of Student Participation in Stringed Instrument Programs for each Approach when Included in the Teaching Process	22
14.	Approach Changes Made by Eighteen Respondents from 1960-61 through 1966-67	24
15.	Grade Levels for Starting Full Orchestras	26
16.	Time Lapse Between the Establishment of Stringed Instrument Programs and Full Orchestras	26
17.	Grade Level for Establishing Full Orchestra for Respondents Starting Their Stringed Instrument Programs either in the Third, Fourth, or Fifth Grades	27
18A.	Number of Times each Classification was Rated One through Six in Respect to the Grade School Orchestra	29
18B.	Number of Times each Classification was Rated One through Six in Respect to the Junior High School Orchestra	29
18C.	Number of Times each Classification was Rated One through Six in Respect to the High School Orchestra	30

Table		Page
19A.	Average Per Cent of Grade School Student Participation for each Rating within each Classification	31
19B.	Average Per Cent of Junior High School Student Participation for each Rating within each Classification	33
19C.	Average Per Cent of High School Student Participation for each Rating within each Classification	34
20.	Rehearsal Areas	36
21.	Number of Rehearsals Per Week	39
22A.	Time spent in Grade School Rehearsals each week and the corresponding Per Cent of Student Participation	41
22B.	Time spent in Junior High Rehearsals each week and the corresponding Per Cent of Student Participation	42
22C.	Time spent in High School Rehearsals each week and the corresponding Per Cent of Student Participation	42
23.	Rehearsal Times	43
24.	Number of Public Orchestra Performances during the School Year at the Grade School, Junior High and High School Levels	45
25.	Number of Public Performances each School Year and the corresponding Student Participation Percentage Averages	46
26.	Number of Full-time, Half-time, and less than Half-time Teachers Employed and the corresponding Per Cent of Student Participation	50

Table		Page
27.	District Size and its Relation to: Number of Teachers Per Program, Number of Students Per Program, and Pupil-Teacher Ratios	52
28.	Number and Per Cent of the Teachers Surveyed meeting each Qualifying Statement	53
29.	Teacher Qualification and Related Student Participation Percentages	55
30.	Length of Tenure of Respondents and corresponding Percentage Rates of Student Participation in the Stringed Instrument Program	56
31.	Student Participation Percentage Rates and corresponding lengths of Tenure for Respondents and their Predecessors	57
32.	Each Respondent's Per Cent of Participating Students showing Musical Interest beyond the Public School Program and the corresponding Student Participation Rates in the Stringed Instrument Program	59
33A.	Factors Contributing to Increased Enrollment in Stringed Instrument Programs	60
33B.	Factors Causing a Decrease in Stringed Instrument Enrollment	61

PRACTICES WHICH ARE COMMON TO SUCCESSFUL PUBLIC SCHOOL ORCHESTRA PROGRAMS

CHAPTER I

INTRODUCTION

The successful public school orchestra program of the late nineteen sixties is the product of a pedagogical system that has undergone numerous changes since its conception at the beginning of this century. These pedagogical changes fall into two categories: those involving a change of emphasis in existing practices and those involving the embodiment of new practices. The orchestra director is responsible for reviewing past and current practices falling within these two categories. He should also familiarize himself with new pedagogical practice changes as they occur. Besides being familiar with the past and current changes in pedagogical practice, the orchestra director should know which practices currently relate to the successful orchestra program.

Purpose of the Study

It is the purpose of this study (1) to present analyses of fifty-seven selected public school orchestra programs, and (2) to derive from the analyses pedagogical practices which are currently successful.

Need for the Study

The need for this study has arisen because orchestra directors trying to strengthen existing programs, or starting new programs, have no dependable knowledge that any specific practices are common to successful orchestra programs.

Procedure

A three-page survey form[1] was constructed to aid in gathering data which, upon analysis[2], would determine practices that are common to successful public school orchestra programs. The survey form embodied five areas: enrollment practices, teaching methods, physical facilities, rehearsals and concerts, and teacher qualification.

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[1]The survey form sent to each director is presented in Appendix I. (Due to the use of larger type the form is four pages in the Appendix.)

[2]In order to present the analyses from the survey forms in as clear and precise a manner as possible chapters II, III, IV, V, VI, and VII of this study are organized around the survey questions.

In addition to these five areas several program summation questions were embodied toward the end of the form.

The selection criterion for orchestra programs to be surveyed was determined after considering several criteria. The programs selected were those which had an orchestra in performance at least once during the past six years (1961-1967) at a professional music conference, clinic or workshop. The programs meeting this criterion, it was decided, represented just as large a group of successful programs as would be identified through any other criterion selected.

A list of ninety orchestra programs meeting the selection criterion was then compiled. Of the ninety programs, seventy-three were identified through professional music magazines, while the remaining seventeen were identified by State Educators Association Presidents and State Presidents of the American String Teachers Association.

The directors of the ninety identified programs were then contacted by letter[1] and asked to fill out the accompanying survey form. Of the ninety directors, fifty-seven from twenty-four states[2] responded by filling out the survey form and returning it.

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[1]The letter sent to each director is presented in Appendix I.

[2]The twenty-four states and the number of respondents from each are listed in Appendix I.

CHAPTER II

ENROLLMENT PRACTICES

Question One

What is the total student enrollment of your school district?--Of the fifty-seven orchestra directors returning the survey form forty-five responded to this question with an over-all total enrollment of 408,483 students.

Question Two

How many of these students in your district are participating in the stringed instrument program?--The total stringed instrument enrollment for the forty-five respondents was 14,235 students, giving these respondents an average of 3.48 per cent student participation in strings. Individual respondent totals varied from 1.68 per cent participation to 10.55 per cent participation.[1] Question two was then divided into three sections to ascertain the per cent of student participation in the stringed instrument program at the elementary level, grades one through six, the junior high level, grades seven through nine, and the senior high level, grades ten through twelve.

---

[1]The per cent of participation for each respondent is presented in Appendix II, Table A.

It was found through this division that the average per cent of student participation in the stringed instrument program at the elementary is 1.97 per cent. The junior high school student participation is 1.00 per cent, (about half what it is at the elementary level) while the high school is .51 per cent, (about half what it is at the junior high school level)[1].

To help ascertain if the total student enrollment of a respondent's school or district had anything in common with the per cent of student participation in the stringed instrument program the following table was constructed.

TABLE 1

RELATIONSHIP BETWEEN DISTRICT SIZE AND PER CENT OF STUDENT PARTICIPATION IN THE STRINGED INSTRUMENT PROGRAM

District Enrollment	Total Student Enrollment	Total String Enrollment	Number of Respondents	Per cent of Total Student Participation
1,000-5,000	61,320	2,353	21	3.84
5,001-10,000	116,166	4,833	16	4.16
10,001-18,000	63,900	2,293	4	3.59
18,001-25,000	43,157	911	2	2.11
25,001-100,000	123,940	3,645	2	2.94

[1]The per cent of participation for each of the three levels is given for each respondent in Appendix II, Table A.

It will be noticed that according to Table one districts between 1,000 and 18,000 in enrollment have student participation percentages that are above the 3.48 per cent average given for all respondents in this study. However, as district enrollment passes the 18,000 mark there is a drop in student participation in the stringed instrument program as indicated by the percentages given for these larger districts.

Question Three

What was the total number of students participating five years ago . . . ten years ago?--It was found that during the 1961-62 school year forty-three respondents had a total of 9,403 students participating in stringed instrument programs. During the 1966-67 school year these same respondents had a total of 12,506 students participating for an increase of 33 per cent. Ten years ago during the 1956-57 school year thirty-six respondents had a total of 6,221 students participating in stringed instrument programs. By the 1966-67 school year these respondents had 11,873 students participating for a ten year increase of 90.85 per cent. It is interesting to note the increase in enrollment for public elementary and secondary school systems across the nation for the same periods. The nation's public school enrollment in 1956-57 was 31,719,000. In 1966-67 public school enrollment had jumped to 42,987,000 for a ten year increase of 35.52 per cent.

The 1961-62 enrollment was 37,464,000 making the five year later 1966-67 enrollment an increase of 14.74 per cent.[1]

When comparing the national public school per cent of enrollment increase over the past ten and five years with the per cent of increase given in this study for the same periods in student participation in stringed instruments the situation looks very encouraging. However, as mentioned earlier in this study, only those orchestra programs meeting a set criterion have been included in this analysis. Therefore, it would be assumed that an analysis of a general sampling would produce findings less encouraging.

Through analysis it was found that the per cent of increase in student participation in the stringed instrument program varied with the size of the respondent's district. The following table shows that for the ten year period, 1956-57 through 1966-67, the per cent of increase was greatest for districts under 18,000 students in enrollment. However, for the five-year period, 1961-62 through 1966-67, districts of 18,000 students and over had the greatest per cent of increase, indicating that the larger districts in this study are beginning to tap their student enrollments.

---

[1]United States Department of Health, Education, and Welfare, Kenneth A. Simon, Director (Washington, D.C.: Government Printing Office, 1966), p. 5.

TABLE 2

RELATIONSHIP BETWEEN DISTRICT SIZE AND RATE OF GROWTH

District Enrollment	Number of Respondents	Average Per Cent of Growth for Five Years	Average Per Cent of Growth for Ten Years
1,000-5,000	16	39.38	185.60
5,001-10,000	15	33.30	140.16
10,001-18,000	2	39.66	157.96
18,001-25,000	1	108.41	87.65
25,001-100,000	2	85.12	128.67

Question Four

At what grade do you start your stringed instrument program?--

This question was answered by fifty-five of the fifty-seven respondents. The number and per cent responding at each grade level are:

second grade - one respondent - 1.74 per cent
third grade - eight respondents - 14.04 per cent
fourth grade - twenty-nine respondents - 50.88 per cent
fifty grade - thirteen respondents - 22.81 per cent
sixth grade - two respondents - 3.51 per cent
seventh grade - one respondent - 1.75 per cent
ninth grade - one respondent - 1.75 per cent[1]

[1]It is interesting to note that Barbara Lantz in "A Survey of Elementary School Instrumental Music Instruction," (The Instrumentalist. Evanston, Ill., June, 1967, pp. 63-77) obtained percentages very close to these when analyzing 186 school music programs.

In determining the correct time to start a student on an instrument Robert W. House states that

> "Any child who is reasonably intelligent, successful in school subjects, sings accurately, possesses good motor control, and volunteers to play is probably ready to play an instrument regardless of age. . . . The most likely time to begin is after a general musical foundation has been acquired but before other special interests are developed. . . .It is for these reasons that schools usually prefer to promote beginning instruction in grades four, five, six and seven. . . ."[1]

To help ascertain if the size of the district influenced the grade level for starting students in the stringed instrument program the following table was constructed.

TABLE 3

RELATIONSHIP BETWEEN DISTRICT SIZE AND THE GRADE LEVEL FOR STARTING STUDENTS IN THE STRINGED INSTRUMENTAL PROGRAM

District Enrollment	Number of Respondents	Respondents Starting in Grades: Third	Fourth	Fifth	Other
1,000-5,000	21	5	10	5	1-(9th)
5,001-10,000	16	2	10	3	1-(2nd)
10,001-18,000	4	0	3	1	0
18,001-25,000	2	0	1	1	0
25,001-100,000	3	0	1	1	1-(7th)

[1]Robert W. House, Instrumental Music for Today's Schools (Englewood Cliffs, New Jersey: Prentice-Hall, 1965), p. 62.

According to Table three, eight out of thirty-seven districts of 10,000 students or less start their stringed instrument programs in the third grade or earlier. Table three also shows that none of the nine districts of 10,000 students or more start their stringed instrument program any earlier than fourth grade. This indicates a possible unwillingness to expand the program to the lower grades in larger districts. The reasons for this unwillingness to expand were not directly determined. However, Table 27 on page 52 of this study shows that the larger districts hire five to nine times as many teachers in an individual program as the small districts. Therefore, in the larger districts an expansion of the stringed instrument program to the third grade would involve the hiring of new teachers, which would be a considerable financial undertaking.

Question Five

How are students chosen for enrollment in the stringed instrument program?[1]--Table four shows the various avenues through which students are recruited and enrolled in the stringed instrument program for the fifty-seven districts studied. The table also shows the number of total respondents using each of the recruitment and enrollment avenues or any combination of avenues.

---

[1]Wolfgang E. Kuhn gives his answer to this question in Instrumental Music (Boston: Allyn and Bacon, Inc., 1962), pp. 12-13.

TABLE 4

NUMBER OF DISTRICTS USING EACH OF THE FIVE LISTED RECRUITMENT AND ENROLLMENT AVENUES OR A COMBINATION OF THESE AVENUES

Enrollment Avenues	Number of Districts Responding	Combination of Responses Within: School Grades	IQ Tests	Music Tests	Interest	Other
School Grades	19	<u>19</u>	9	14	17	9
IQ Tests	10	9	<u>10</u>	8	8	6
Music Tests	30	14	8	<u>30</u>	27	8
Interest	48	17	7	26	<u>48</u>	13
Other[a]	19[b]	9	6	8	13	<u>19</u>

[a]Recruitment and enrollment avenues used by respondents but not listed individually due to infrequent use.

[b]The nineteen responding in this classification were divided as follows: ten - recommendation of music teacher, classroom teacher, etc., two - performance of pre-stringed instrument, one - teaching entire classrooms, one - physical characteristics, five - void, due to errors made in responding.

Note:

The numbers underlined represent the number of responses under each recruitment avenue. The other numbers in the same columns, horizontally and vertically, represent other recruitment avenues used by those underlined. Example: Nineteen respondents used school grades as a recruitment avenue; included in the nineteen were: nine using intelligence tests, fourteen using music tests, seventeen using interest as a recruitment avenue, and nine using some other recruitment avenue.

It is noticed that according to this study respondents recruit students through the individual and combined enrollment avenues of interest, music tests, and school grades most frequently. Intelligence tests are used less frequently than any of the other avenues of recruitment listed.

The size of the respondent's district, it was found, has very little influence on the choice of the recruitment avenue or avenues used in the enrollment process. Table five substantiates this statement by showing the recruiting avenues used by forty-seven districts of varing size.

TABLE 5

AVENUES OF RECRUITING AND ENROLLING STRINGED INSTRUMENT STUDENTS USED BY FORTY-SEVEN DISTRICTS GROUPED ACCORDING TO SIZE

Enrollment Avenues	Number and Type of Responses Within Each District Size				
	1,000-5,000	5,001-10,000	10,001-18,000	18,001-25,000	25,001 100,000
	27 districts	17 districts	4 districts	2 districts	3 districts
School Grades	5	10	2	0	1
IQ Tests	3	6	0	0	1
Music Tests	9	13	4	1	0
Interest . . .	21	13	4	2	3
Other[a]	4	7	1	0	1

[a]Eight out of this horizontal row used recommendations as an enrollment avenue.

All but three of the forty-seven districts, in Table five, included interest as an avenue of recruitment.

It was found that the per cent of a district's student participation varies with the avenue or avenues of recruitment used in that district's enrollment process. Table six shows the variance in percentages for the various avenues of recruitment.

TABLE 6

RELATIONSHIP BETWEEN THE AVENUES OF RECRUITMENT USED IN THE ENROLLMENT PROCESS AND STUDENT PARTICIPATION IN THE STRINGED INSTRUMENT PROGRAM

Enrollment Avenues	Number of Districts Responding	Average Per Cent of Participation for each of the Recruitment avenues when included in the Enrollment Process
School Grades	17	4.99
IQ Tests	9	4.45
Music Tests	25	3.32
Interest	40	3.43
Recommendation . .	8	5.63
Other[a]	6	6.82

[a]Recruitment and enrollment avenues used by respondents but not listed individually due to infrequent use.

According to Table six the avenues of recruitment that are common to districts that have the highest per cent of student participation are:

> other avenues - enrollment through pre-stringed instrument classes, teaching entire classrooms, physical characteristics, etc., 6.82 per cent student participation
>
> Recommendation - enrollment through recommendation of general music teacher, classroom teacher, etc., 5.63 per cent student participation

When comparing the various avenues of recruitment with the per cent of increase in student participation for the districts it was noticed that the per cent of increase varied with each enrollment avenue used. Table seven shows this variance.

TABLE 7

RELATIONSHIP BETWEEN THE AVENUES OF RECRUITMENT USED IN THE ENROLLMENT PROCESS AND THE PER CENT OF INCREASE IN STUDENT PARTICIPATION IN STRINGED INSTRUMENTS FROM 1961-62 THROUGH 66-67

Enrollment Avenues	Number of Districts Responding	Average Per Cent of Increase for Five Years for each of the Recruitment Avenues when included in the Enrollment Process
School Grades	17	63.61
IQ Tests	8	71.21
Music Tests	25	66.59
Interest	37	56.11
Recommendation	8	40.66
Other	6	39.35

This table shows that districts including intelligence tests as a part of their enrollment process have the greatest per cent of increase, 71.21 per cent, in student participation for the five year period. Other avenues of recruitment in districts with high percentage increases for the five year period are music tests and school grades with 66.59 per cent and 63.61 per cent respectively.

Question Six

What type of instruction is your stringed instrument program based on?--Since many respondents base their programs on more than one type of instruction the following table includes the various types and combinations of instruction and the number of respondents adhering to each.

TABLE 8

NUMBER OF DISTRICTS USING EACH OF THE FOUR LISTED INSTRUCTIONAL TYPES OR A COMBINATION OF THESE TYPES

Instructional Types	Districts Responding	Combination of Responses Within: School Class Instruction	Pri. Inst. Outside School	Pri. Inst. Inside School	Other
School Class Instruction	55	55	26	9	6
Private Instruction Outside School	28	26	28	5	5
Private Instruction Inside School	11	9	5	11	2
Other	2	1	1	1	2

Note:

The numbers underlined represent the number of responses under each instructional type. The other numbers in the same column, horizontally and vertically, represent other instructional types used by those underlined.

In Table eight it is noticed that the vast majority, fifty-five out of fifty-seven, of the respondents base their programs on school class instruction.

This type of instruction, according to Wolfgang Kuhn, has several advantages in that it is; economical, psychologically good, pedagogically sound, and musically stimulating.[1] Almost half of the fifty-five respondents using school class instruction include private instruction outside of school as an additional type of instruction.

To determine if the size of the school district influences the type of instruction employed by that district the relationships in the following table were studied.

TABLE 9

RELATIONSHIP BETWEEN DISTRICT SIZE AND THE TYPE OF INSTRUCTION EMPLOYED

District Enrollment	Number of Respondents	School Class Instru.	Private Instru. Outside School	Private Instru. Inside School	Other
1,000-5,000	22	21	12	7	1
5,001-10,000	17	16	11	2	1
10,001-18,000	4	3	2	0	0
18,001-25,000	2	2	1	0	0
25,001-100,000	3	3	1	0	0

[1]Ibid., 100-102

Table nine shows that the larger districts studied in this survey base their instruction mainly on school class instruction with some assistance from private instruction outside of school. It is interesting to note that districts of 10,000 students or fewer, though basing their instruction on school class instruction, rely quite heavily on private instruction outside of school and private instruction in school.

Table ten shows the average per cent of student participation in the stringed instrument program for districts emboding each of the various types of instruction.

TABLE 10

AVERAGE PER CENT OF STUDENT PARTICIPATION IN THE STRINGED INSTRUMENT PROGRAM FOR EACH TYPE OF INSTRUCTION USED

Instructional Types	Number of Responses[a]	Average Per Cent of Participation for each Instructional Type
School Class Instruction	44	4.02
Private Instru. Outside School	25	3.56
Private Instru. Inside School	8	3.10
Other	2	2.34

[a]These responses came from forty-five different respondents.

According to Table ten the districts studied in this survey with the highest per cent of student participation base their instruction programs primarily on school class instruction and secondly on private instruction outside of school

The last table in this chapter, Table eleven, shows the relationship between each type of instruction and the average per cent of increase in student participation in the stringed instrument program.

TABLE 11

RELATIONSHIP BETWEEN EACH INSTRUCTIONAL TYPE USED AND THE PER CENT OF INCREASE IN STUDENT PARTICIPATION FROM 1956-57 THROUGH 1966-67 AND FROM 1961-62 THROUGH 1966-67

Instructional Types	Number of Responses five years - ten years	Average Per Cent of Increase for each of the Instructional Types when included in the Instruction Program: five years	ten years
School Class Instruction	39 - 30	54.01	104.66
Private Instru. Outside School	21 - 14	79.24	120.76
Private Instru. Inside School	10 - 6	80.62	66.77
Other	2[a] - 0	97.09	.00

[a]One, Saturday graded classes; one, private classes outside school.

It would appear that those districts making the most rapid enrollment gains during the past ten years have been those who include in their instruction program both school class instruction and private instruction outside of school. It is interesting to note that those districts in this study making the most rapid enrollment gains during the past five years include the private types of instruction in their programs.

This indicates the growing importance of private instruction to the successful public school orchestra program.

Tables ten and eleven show that districts desiring to involve more students in stringed instruments should center their instruction programs around the school class situation. This should be backed up by good private instruction outside of school.

CHAPTER III

TEACHING METHODS

Question Eight

What basic approaches are embodied in your beginning stringed instrument materials?--The number of times that each approach was checked by fifty-one of the fifty-seven respondents is shown in Table twelve.

TABLE 12

NUMBER OF DISTRICTS USING EACH OF THE THIRTEEN LISTED APPROACHES OR A COMBINATION OF THESE APPROACHES

Approaches	Respondents	Combination of Responses Within												
		Rote (Arco)	Rote (Pizz.)	"D"	"C"	Like Instru.	Family Instru.	Unlike Instru.	Whole-Note	Half-Note	Quarter-Note	(Arco) Note-Reading	(Pizz.) Note-Reading	Other
Rote (Arco). .	33	33	22	22	01	19	21	01	05	05	20	21	15	04
Rote (Pizz.) .	25	22	25	19	00	15	17	01	02	04	15	16	13	00
"D".	35	22	19	35	02	16	25	01	06	04	17	20	12	06
"C".	03	01	00	02	03	02	01	00	02	01	00	01	01	02
Like Instru. .	26	19	15	16	02	26	12	01	04	04	10	15	14	04
Family Instru.	32	21	17	26	01	12	32	01	04	04	32	18	10	03
Unlike Instru.	03	01	01	01	00	01	01	03	00	00	01	02	01	01
Whole-Note . .	08	05	02	06	02	04	04	00	08	05	04	07	03	01
Half-Note. . .	07	05	04	04	01	04	04	00	05	07	05	05	02	00
Quarter-Note .	23	20	15	17	00	10	17	01	04	05	23	14	10	01
Note-Reading (Arco)	31	21	16	20	01	15	18	02	07	05	14	31	17	04
Note-Reading (Pizz.). . . .	20	15	13	12	01	14	10	01	03	02	10	17	20	03
Other.	08	04	00	06	02	04	03	01	01	00	01	04	03	08[a]

[a]Four misplaced answers, one flat approach, one third position approach, and one finger pattern approach.

Note: The numbers underlined represent the number of

According to Table twelve the respondents in this study embody the "D" approach, rote approach[1], family instrument approach, and the arco note-reading approach in their materials more than any of the other approaches listed. The complete list of approaches, given in the order of frequency of use, is:

"D"
rote (arco)
family instrument
note-reading (arco)
like instrument
rote (pizz.)
note-reading (pizz.)
whole-note
half-note
"C"
unlike instrument

The "C" approach and the unlike instrument approach received the least mention as being a part of the respondents materials. It is interesting to note that these approaches are generally associated with heterogeneous classes.

The relationship between the per cent of student participation and the approach or approaches included in the teaching process was noted and is presented in Table thirteen.

---

responses under each approach. The other numbers in the same column, horizontally and vertically, represent other approaches used by those underlined.

[1]Ibid., 111. "Youngsters learn practically everything first by rote, including language, nursery rhymes, poems, songs, games, dance steps, and singing commercials . . . . There is no better, nor fundamentally more correct or quicker, way of letting children participate in initial music than through rote activities."

TABLE 13

AVERAGE PER CENT OF STUDENT PARTICIPATION IN THE STRINGED INSTRUMENT PROGRAM FOR EACH APPROACH WHEN INCLUDED IN THE TEACHING PROCESS

Approaches	Number of Districts Responding	Average Per Cent of Participation for each Approach when included in the Teaching Process
Rote (Arco).	30	3.94
Rote (Pizz.)	23	4.22
"D".	26	4.36
"C".	3	3.76
Like Instru.	21	4.16
Family Instru. . . .	26	4.11
Unlike Instru. . . .	2	1.78
Whole-Note	7	5.25
Half-Note.	6	5.26
Quarter-Note	19	4.34
Note-Reading (Arco)	25	4.10
Note-Reading (Pizz.).	17	4.83
Other.	3	3.30

According to the districts surveyed in this study the following approaches are common to high percentages of student participation in stringed instrument programs:

half-note approach - six respondents with an average student participation of 5.26 per cent,

whole-note approach - seven respondents with an average student participation of 5.25 per cent,

pizzicato note-reading approach - seventeen respondents, with an average participation of 4.83 per cent,

"D" approach - twenty-six respondents with an average student participation of 4.36 per cent,

quarter-note approach - nineteen respondents, with an average student participation of 4.34 per cent,

pizzicato rote approach - twenty-three respondents, with an average participation of 4.22 per cent

Approaches found to be common to low participation percentages are the "C" approach with 3.76 per cent, and the unlike-instrument approach with 1.78 per cent. This indicates that homogeneous class approaches are common to higher participation percentages, while heterogeneous approaches, such as the "C" approach and unlike instrument approach, are common to lower participation percentages.

Question Nine

Have you changed any of your beginning stringed instrument materials in the past one to six years?--This question was answered by fifty of the fifty-seven respondents returning the survey form. Answering affirmatively were thirty-nine of the respondents. Respondents not making a change in the past six years numbered eleven. The remaining seven failed to respond on this question.

Figures like those above, indicating a high per cent of change, have challenged those interested in the various pedagogical aspects of stringed instrument teaching to write the numerous methods available today. Mr. J. P. Holesovsky states that "the present generation of string teachers is blessed with a great abundance and variety of methods for teaching string classes of like or mixed instruments. Almost every approach is represented by at least one method."[1]

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[1]J. P. Holesovsky, "Technique that Counts," The Instrumentalist, October, 1962, pp. 63-64.

However, in a day of numerous methods stringed instrument teachers must be made aware that "the answers to our problems will not come in the number of methods that are published, but they will come when more and more teachers not only know what and when to teach but also how to teach."[1]

Question Ten

If you have changed materials what basic approach changes are evident?--The basic approach changes made by eighteen of the respondents are given in Table fourteen. It is interesting that twenty-one additional respondents answered this question but listed no basic approach change within these materials. As is noticed, the most numerous changes involved twelve of the respondents who had changed from the "C" approach to the "D" approach, and six of the respondents who had changed from the note approach to an approach with more emphasis on rote learning.

TABLE 14

APPROACH CHANGES MADE BY EIGHTEEN RESPONDENTS FROM 1960-61 THROUGH 1966-67

Changes	Number Changing
"C" Approach to "D" Approach	12
Note to Rote	6
Unlike Instru. to Family Instru.	1
Arco Approach to Pizz. Approach.	1
Rote to Note	2

[1] Ibid.

Question Eleven

Are you satisfied with the results of your current beginning stringed instrument materials?--The fifty-seven answers for this question were divided as follows: yes, thirty respondents; no, four respondents; partially, seventeen respondents; and six respondents who failed to respond to this question.

It is interesting to note the variance in student participation percentages for grades one through six when grouped and averaged according to the three answers given in the preceding paragraph. The respondents that are satisfied with their beginning stringed instrument materials have an average student participation of 2.16 per cent. Those not happy with their materials were represented by a participation of 1.10 per cent; while those partially satisfied had an average of 3.30 per cent. These figures indicate that satisfaction in beginning materials might lead to stagnation in the stringed instrument program. As is known, satisfaction often limits the desire for something better. In this study this point is born out, for those who were satisfied with their materials are definitely lower in student participation than those who were partially satisfied.

Question Twelve

In what grade are wind, brass and percussion instruments added to the stringed instruments for the full orchestra?--The number and per cent of respondents starting full orchestras in the various grades are given in Table fifteen.

TABLE 15

GRADE LEVELS FOR STARTING FULL ORCHESTRAS

Grades	4	5	6	7	8	9
Number of Respondents	6	15	7	18	2	4
Per cent at each Grade Level . . .	10.53	26.32	12.28	31.58	3.51	7.02

Table fifteen shows that most of the districts surveyed in this study start their full orchestras either in the fifth grade or the seventh grade.

Table sixteen and its' divisions was constructed in order to ascertain the length of time between the start of each respondent's program and the establishment of a full orchestra by that respondent.

TABLE 16

TIME LAPSE BETWEEN THE ESTABLISHMENT OF STRINGED INSTRUMENT PROGRAMS AND FULL ORCHESTRAS

Time Lapse	Same Year	One Year	Two Years	Three Years	Other
Number of Respondents. . . .	8	14	15	12	2[a]
Per cent Starting	15.69	27.45	29.41	23.53	3.92

[a]One six years and one five years

Most respondents, according to Table 16, establish their full orchestra program within one to three years after the start of the stringed instrument program.

In Table seventeen the different grade levels for starting the stringed instrument program are compared with the corresponding grade levels at which the full orchestra is started.

TABLE 17

GRADE LEVEL FOR ESTABLISHING FULL ORCHESTRA FOR RESPONDENTS STARTING THEIR STRINGED INSTRUMENT PROGRAMS EITHER IN THE THIRD, FOURTH, OR FIFTH GRADES

Grade Level for starting Program	Total Number of Respondents at each level	Grades at which Full Orchestra is established	Number of Respondents	Average lapse of time
Third	8	Fourth	2	
		Fifth	4	2.38
		Sixth	1	(years)
		Ninth	1	
Fourth	26	Fourth	4	
		Fifth	10	1.77
		Sixth	2	(years)
		Seventh	9	
Fifth	13	Fifth	2	
		Sixth	3	1.54
		Seventh	7	(years)
		Eighth	1	
Other[a]	4			

[a]Two start their stringed instrument program in second grade; two start in the seventh grade.

Through Table seventeen it is seen that districts starting their stringed instrument programs in the third grade wait an average of 2.38 years, or until the fifth grade, before their full orchestras are started. Those districts starting their program in the fourth grade show an average lapse of 1.77 years, or until the fifth grade, before starting their full orchestra programs.

Stringed instrument programs starting in the fifth grade are followed by an average lapse of 1.54 years.

Question Thirteen

Your grade school, junior high, or high school orchestra's repertoire is based on the music from six classifications. These classifications are: Baroque, Classical, Romantic, Twentieth Century (serious), Twentieth Century (semi-classical), and Twentieth Century (pop). Place a number one, for each grade level, next to the classification that represents the source of the bulk of your repertoire. Continue to number through six with the classification receiving six representing the smallest portion of your repertoire.

Table 18A gives the number of times that each repertoire classification was rated one through six for the grade school level; while Tables 18B and 18C give the number of times that each classification was rated one through six for the junior high and high school levels respectively.

It will be noticed, in Table 18A, that the majority of the grade school orchestra directors surveyed in this study have repertoires based in the following order of importance:

first - Classical
second - Classical
third - Romantic
fourth - Twentieth Century (serious)
fifth - Twentieth Century (semi-classical)
sixth - Twentieth Century (pop)

TABLE 18A

NUMBER OF TIMES EACH CLASSIFICATION WAS RATED ONE THROUGH SIX IN RESPECT TO THE GRADE SCHOOL ORCHESTRA

Classification	Number of responses	Ratings 1	2	3	4	5	6
Baroque.	28	10	05	07	05	00	01
Classical.	29	11	11	04	01	02	00
Romantic	26	04	09	10	02	01	00
Twentieth Century. . . . (serious)	25	03	02	01	08	03	08
Twentieth Century. . . . (semi-classical)	29	05	01	05	05	12	01
Twentieth Century (pop).	29	00	04	02	04	05	14

Note: The highest number of responses under each rating is underlined.

TABLE 18B

NUMBER OF TIMES EACH CLASSIFICATION WAS RATED ONE THROUGH SIX IN RESPECT TO THE JUNIOR HIGH SCHOOL ORCHESTRA

Classification	Number of responses	Ratings 1	2	3	4	5	6
Baroque.	35	10	12	09	00	03	01
Classical.	35	18	10	01	04	01	01
Romantic	33	06	05	11	06	04	01
Twentieth Century. . . . (serious)	29	02	03	03	07	07	07
Twentieth Century. . . . (semi-classical)	33	02	01	08	12	10	00
Twentieth Century (pop).	34	00	04	03	03	06	18

Note: The highest number of responses under each rating is underlined.

Table 18B shows that junior high school orchestra directors base their repertoire in the following order of importance:

first - Classical
second - Baroque
third - Romantic
fourth - Twentieth Century (semi-classical)
fifth - Twentieth Century (semi-classical)
sixth - Twentieth Century (pop)

TABLE 18C

NUMBER OF TIMES EACH CLASSIFICATION WAS RATED ONE THROUGH SIX IN RESPECT TO THE HIGH SCHOOL ORCHESTRA

Classification	Number of Responses	Ratings 1	2	3	4	5	6
Baroque.	37	09	09	07	08	03	01
Classical.	40	16	12	04	06	00	02
Romantic	39	13	10	08	05	03	00
Twentieth Century. . . . (serious)	38	04	05	12	11	04	02
Twentieth Century. . . . (semi-classical)	37	01	05	06	05	18	02
Twentieth Century (pop).	36	00	01	02	03	06	24

Note: The highest number of responses under each rating is underlined.

Table 18C shows that the majority of the high school orchestra directors surveyed in this study base their repertoire in the following order of importance:

first - Classical
second - Classical
third - Twentieth Century (serious)
fourth - Twentieth Century (serious)
fifth - Twentieth Century (semi-classical)
sixth - Twentieth Century (pop)

All three of the preceding Tables, 18A, 18B, and 18C, show that the majority of the orchestra directors surveyed at each grade level chose the Classical period as the period in which the bulk of their repertoire is taken. The majority of the directors at each grade level also indicate that Twentieth Century (pop) music forms the smallest portion of their repertoires.[1]

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[1]Robert House in Instrumental Music for Today's Schools, p. 117, reminds the orchestra director, forming a pedagogically sound repertoire, the "each number chosen should have intrinsic merit. This does

In Tables 19A, 19B, and 19C the relationship between each repertoire classification and the average per cent of student participation in stringed instruments for districts including each of the classifications as a part of their repertoire is shown. Table 19A shows this relationship in respect to the grade school orchestras surveyed in this study; while Tables 19B and 19C show this information in respect to the junior high and high school orchestras surveyed.

TABLE 19A

AVERAGE PER CENT OF GRADE SCHOOL STUDENT PARTICIPATION FOR EACH RATING WITHIN EACH CLASSIFICATION

Classification	Average Per cent of Participation under each Rating					
	1	2	3	4	5	6
Baroque.	2.24	2.48	2.00	1.89	----	1.62
Classical.	2.42	1.95	2.11	1.00	1.62	----
Romantic	1.74	2.18	2.52	.77	1.00	----
Twentieth Century. . . (serious)	1.36	----	----	2.45	1.53	1.75
Twentieth Century. . . . (semi-classical)	1.31	2.31	.91	2.16	2.10	3.67
Twentieth Century. . . (pop)	----	1.05	1.75	2.16	2.64	1.92

Note: The highest percentage for each classification is underlined.

---

not mean that the choice is limited to Bach, Beethoven, and Brahms, for many good pieces are quite simple and light. But it does mean that there must be something musical, something fresh and original about the music that captures the imagination. The trite and banal must be avoided in favor of that which possesses natural style and feeling . . . . The director must guard against using numbers that he feels he ought to like but really doesn't, since this merely creates a good looking program on paper. . . . After all, the director must appreciate a piece of music if he is to do a decent job of interpretation and carry its expressive qualities to the students."

Table 19A shows that grade school orchestra programs with the highest per cent of student participation have repertoires that are based on the following order of importance:

> Classical - those choosing the bulk of their repertoire from this period had 2.42 per cent average participation
>
> Baroque - those choosing this period as the second most important period to draw their repertoire from had 2.48 per cent average participation
>
> Romantic - those choosing this period as the third most important period had 2.52 per cent average participation
>
> Twentieth Century (serious) - those choosing this as the fourth most important area had 2.45 per cent average participation
>
> Twentieth Century (pop) - those choosing this as the fifth most important area to draw their repertoire from had 2.64 per cent average participation
>
> Twentieth Century (semi-classical) - those choosing this as the sixth area had 3.67 per cent average participation

It is interesting to note that the average per cent of student participation in stringed instruments given for the grade school level on page five of this study is 1.97 per cent. The average per cent of student participation for grade school programs following this order of repertoire selection is 2.70 per cent.

Table 19B shows that junior high school orchestra programs with the highest per cent of student participation in stringed instruments follow a repertoire selection pattern slightly different than the grade school pattern.

TABLE 19B

AVERAGE PER CENT OF JUNIOR HIGH SCHOOL STUDENT PARTICIPATION FOR EACH RATING WITHIN EACH CLASSIFICATION

Classification	Average Per cent of Participation under each Rating					
	1	2	3	4	5	6
Baroque.	.86	1.61	.92	----	.75	----
Classical.	1.39	1.01	----	.71	.80	.63
Romantic	.40	.91	1.40	1.29	1.15	----
Twentieth Century. . . (serious)	1.29	.74	.88	.93	1.82	1.20
Twentieth Century. . . (semi-classical)	.75	----	1.17	1.36	1.12	----
Twentieth Century. . . (pop)	----	.78	1.41	1.68	.91	1.20

Note: The highest percentage for each classification is underlined.

According to Table 19B junior high school orchestra programs with the highest per cent of participation have repertoires based in the following order of importance:

Baroque - those choosing the bulk of their repertoire from this period had 1.61 per cent average participation

Classical - those choosing this period as the second most important period to draw their repertoire from had 1.39 per cent average participation

Twentieth Century (pop) and Romantic - those choosing these areas had 1.41 and 1.42 per cent average participation respectively

Twentieth Century (pop) - those choosing this as the fourth most important area had 1.68 per cent average participation

Twentieth Century (serious) - those choosing this as the fifth most important area to draw their repertoire from had 1.82 per cent average participation

Twentieth Century (serious) and (pop) - those choosing these areas had 1.20 per cent average participation

The average per cent of student participation in stringed instruments given for the junior high level on page five of this study is 1.00 per cent; while the average per cent of student participation for junior high school programs following this order of repertoire selection is 1.52 per cent.

TABLE 19C

AVERAGE PER CENT OF HIGH SCHOOL STUDENT PARTICIPATION FOR EACH RATING WITHIN EACH CLASSIFICATION

Classification	Average Per cent of Participation under each Rating					
	1	2	3	4	5	6
Baroque.	.55	1.02	.58	.54	1.59	----
Classical.	1.07	.72	.68	.43	----	.38
Romantic	.47	.69	1.12	.94	.33	----
Twentieth Century. . (serious)	.82	.53	.52	.81	1.50	.40
Twentieth Century. . (semi-classical)	.75	.78	.77	1.87	.66	.42
Twentieth Century. . (pop)	----	----	1.13	.77	.40	.81

Note: The highest percentage for each classification is underlined.

Table 19C shows that high school orchestra programs with the highest per cent of student participation have repertoires based in the following order of importance:

> Classical - those choosing the bulk of their repertoire from this period had 1.07 per cent average participation
>
> Baroque - those choosing this period as the second most important period to draw their repertoire from had 1.02 per cent average participation
>
> Twentieth Century (pop) and Romantic - those choosing these areas had 1.13 and 1.12 per cent average participation respectively

Twentieth Century (semi-classical) - those choosing this as the fourth most important area had 1.87 per cent average participation

Baroque - those choosing this as the fifth most important area to draw their repertoire from had 1.59 per cent average participation

Twentieth Century (pop) - those choosing this area had .81 per cent average participation

The average per cent of student participation in stringed instruments given for the high school level on page five of this study is .51 per cent; while the average per cent of participation for high school programs following this order of repertoire selection is 1.25 per cent.

The data presented after each of the preceding Tables 19A, 19B, and 19C, indicate that the average per cent of student participation in stringed instruments would rise considerably if directors would choose their repertoires from the various periods in the order of importance shown.

CHAPTER IV

PRACTICES INVOLVING PHYSICAL FACILITIES

Question Fourteen

Please check the type of rehearsal areas that are used by the grade school, junior high, and high school orchestras of your district.[1]--The number of times that each of the areas was checked for the three grade levels is seen in Table twenty.

TABLE 20

REHEARSAL AREAS

Rehearsal Areas	Number Responding at each Area for: Grades 1-6	Grades 7-9	Grades 10-12
Cafetoriums.	18	04	00
Gymnasiums	16	00	01
Auditoriums.	15	10	08
Class rooms.	17	06	04
Rehearsal rooms. . . .	26	40	45
Other.	9	00	03

According to Table twenty the districts surveyed in this study show a normal pattern of rehearsal area change from one grade level to the next.

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[1]Robert House in Instrumental Music for Today's Schools, p. 185, states that "physical surroundings are only one factor in good musical instruction, but it is a very important factor and is more critical than in most educational fields."

The grade school level shows diversified rehearsal area types, while the junior high and high school levels show a definite change to the rehearsal room type.

Question Fifteen

Are these rehearsal areas adequate in size?--All of the fifty-seven respondents answered this question with forty-five responding "yes" and twelve responding "no". Those responding "yes" have an average student participation in stringed instruments of 4.26 per cent, while those answering "no" have a participation average of 4.15 per cent.

Question Sixteen

Are these rehearsal areas in the proper location?--This question was answered by fifty-six of the fifty-seven respondents. Those answering "yes" numbered forty-six, while those answering "no" numbered ten. Respondents answering "yes" have an average student participation in stringed instruments of 4.24 per cent, while those answering "no" have an average participation of 4.35 per cent.

Question Seventeen

Do you have an adequate supply of school owned instruments?[1]--

[1]Barbara Lantz in "Survey of Elementary Instrumental Music Instruction," p. 64, presents some interesting data in this area.

All fifty-seven respondents answered this question. Those answering "yes" numbered fifty-three, while those answering "no" numbered four. The respondents answering "yes" have an average student participation of 4.38 per cent, while respondents answering "no" have an average participation of 2.88 per cent.

Therefore, according to the districts surveyed in this study and the percentages given for questions fifteen and sixteen, adequately sized and properly located rehearsal rooms have little in common with the per cent of student participation in stringed instruments. However, a considerable difference in percentage is noticed in question seventeen between those districts with an adequate supply of school owned instruments and those not having an adequate supply. This would indicate that an adequate supply of school owned instruments is common to districts with a high per cent of student participation in stringed instruments.

CHAPTER V

REHEARSAL AND CONCERT PRACTICES

Question Eighteen

How many times a week do you rehearse?[1]--Out of the fifty-seven respondents forty-two answered this question at the grade school level, forty-six at the junior high level, and forty-nine at the high school level. Table twenty-one shows the division of these responses within each of the three levels.

TABLE 21

NUMBER OF REHEARSALS PER WEEK

Grade Level	Number of Respondents having the following Number of Rehearsals each Week				
	1	2	3	4	5
Grade School, Grades 1-6	27	11	02	02	00
Junior High, Grades 7-9	02	10	14	06	14
High School, Grades 10-12	01	06	01	07	34

Table twenty-one shows that according to the districts surveyed in this study most grade school string programs rehearse once each week.

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[1]Ibid.

It further shows that the junior high orchestras surveyed rehearse each week from two to five times with three or five times each week being the most common. The majority of the high school orchestras surveyed rehearse five times each week.

Question Nineteen

How long are your rehearsals?--The average individual rehearsal length for forty-three respondents answering at the grade school level is forty-three minutes. These answers vary in length of time from thirty to ninety minutes. Individual rehearsal length for forty-three respondents answering at the junior high level was averaged and found to be fifty-four minutes. Answers at this level vary in length of time from 40 to 120 minutes. The average of forty-seven responses at the high school level is fifty-seven minutes. At this level the answers vary, as at the junior high level, from 40 to 120 minutes.

When figuring weekly rehearsal time it was found that the 43 respondents at the grade school level have an average time of 61 minutes, while the 43 respondents at the junior high level have a weekly average of 194 minutes. The 47 respondents at the high school level have an average weekly rehearsal time of 240 minutes. The weekly individual respondent rehearsal totals vary for the three levels as follows:

grade school - 30 to 180 minutes
junior high - 60 to 300 minutes
high school - 90 to 375 minutes

Tables 22A, 22B, and 22C show a comparative study between the time spent in rehearsal each week and the corresponding per cent of students participating in stringed instruments. Table 22A shows information in this area as it relates to the grade school level, while Tables 22B and 22C relate to the junior high and high school levels respectively.

TABLE 22A

TIME SPENT IN GRADE SCHOOL REHEARSALS EACH WEEK AND THE CORRESPONDING PER CENT OF STUDENT PARTICIPATION

Total Weekly Rehearsal Time	Number of Respondents	Number of Respondents Averaged[a]	Average Per cent of Participation
30-59 minutes. . .	19[b]	12	2.14
60-89 minutes. . .	15	8	2.07
90-119 minutes . .	7	7	1.89
120-149 minutes. .	1	0	----
150-180 minutes. .	1	0	----

[a]Respondents in this column completed sufficient information to determine the average per cent of participation.

[b]All of these rehearsed once each week.

According to Table 22A grade school respondents rehearsing between thirty and fifty-nine minutes each week have the highest per cent of student participation in stringed instruments. However, the percentage difference, as shown in Table 22A, is too slight to show whether the length of rehearsal time actually influenced student participation.

TABLE 22B

TIME SPENT IN JUNIOR HIGH REHEARSALS EACH WEEK AND THE CORRESPONDING PER CENT OF STUDENT PARTICIPATION

Total Weekly Rehearsal Time	Number of Respondents	Number of Respondents Averaged[a]	Average Per cent of Participation
60-89 minutes. . . .	6	4	.92
100-139 minutes. . .	8	3	1.02
140-179 minutes. . .	11	8	1.18
180-219 minutes. . .	4	4	.98
220-300 minutes. . .	14	10	1.16

[a]Respondents in this column completed sufficient information to determine the average per cent of participation.

TABLE 22C

TIME SPENT IN HIGH SCHOOL REHEARSALS EACH WEEK AND THE CORRESPONDING PER CENT OF STUDENT PARTICIPATION

Total Weekly Rehearsal Time	Number of Respondents	Number of Respondents Averaged[a]	Average Per cent of Participation
90-149 minutes . . .	4	2	.44
150-209 minutes. . .	7	4	1.13
210-269 minutes. . .	10	4	.70
270-339 minutes. . .	25	19	.61
340-375 minutes. . .	1	0	----

[a]Respondents in this column completed sufficient information to determine the average per cent of participation.

According to Tables 22A, 22B, and 22C the length of rehearsal time, for districts in this study, has little in common with the percentage rate of students participating in stringed instruments. This is rather startling, but indicates that what transpires in rehearsal time is more important than the length of rehearsal time.

Question Twenty

During what part of the day do you rehearse?--The number of times that each part of the day was checked for each of the three grade levels is shown in Table twenty-three.

TABLE 23

REHEARSAL TIMES

Rehearsal Times	Number Rehearsing during each of the listed Rehearsal Times		
	Grades 1-6	Grades 7-9	Grades 10-12
School Time.	26	41	46
Before School.	16	02	00
After School	13	07	01
During Lunch Hour. . .	04	00	01
Other.	03	02	04

It is interesting to note, in Table twenty-three, the numerous rehearsal times reported at the grade school level and then the shift from these toward school time rehearsals by the high school level.

To ascertain if the rehearsal placement during the day affected the number of students participating in stringed instruments, the respondents participation percentages were averaged[1] for each level and rehearsal time shown in Table twenty-three. It was found through these averages that grade school respondents rehearsing during school time had 2.08 per cent student participation, those rehearsing before school had 1.77 per cent participation, and those rehearsing after school had 2.26 per cent participation. Therefore, according to these figures rehearsal placement during the day at the grade school level has little in common with the percentage rate of student participation in stringed instruments. However, at the junior high and high school levels a variance in the participation percentage was noticed as rehearsal placement varied. These variances are:

junior high - school time rehearsals - 1.22 per cent student participation,
before school rehearsals - 1.29 per cent student participation,
after school rehearsals - .97 per cent student participation

high school - school time rehearsals - .79 per cent student participation,
during lunch rehearsals - .49 per cent student participation,
evening rehearsals - .20 per cent student participation

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[1]Several of the respondents counted in Table twenty-one did not complete sufficient information on the survey form to be averaged.

These figures indicate that the junior high and high school programs of this study having the highest student participation rates have their rehearsals during school time.

Question Twenty-one

How many times during the school year do your orchestras perform in public?[1]--The answers received for this question varied greatly at each of the three grade levels. Table twenty-four shows this variance along with the average number of performances given during the school year for each level.

TABLE 24

NUMBER OF PUBLIC ORCHESTRA PERFORMANCES DURING THE SCHOOL YEAR AT THE GRADE SCHOOL, JUNIOR HIGH AND HIGH SCHOOL LEVELS

Grade Level	Number of Respondents	Number of Performances each School Year													Average Number of Performances
		1	2	3	4	5	6	7	8	9	10	12	15	25	
Grade School	40	10	10	11	06	01	01	00	00	00	01	00	00	00	2.7
Junior High	42	00	03	09	14	07	06	01	01	00	01	00	00	00	4.4
High School	47	00	02	01	02	06	15	01	07	02	03	04	03	01	7.7

[1]Robert H. Klotman states in Success With School Orchestras (Urbana, Ill.: ASTA Publication, 1958), p. 29 that "orchestras need the stimulation of frequent performances before the school and the community. The desire to perform will for others act as a strong incentive for musical development. It also helps the student feel the importance and responsibility attached to membership in the organization."

Table twenty-four shows that for those surveyed in this study the number of public performances at the grade school level varies from one to ten each school year. The average number of performances at this level is 2.7. Respondents answering at the junior high level have a performance variance of two to ten, with an average of 4.4 performances each school year. The number of performances at the high school level varies from two to twenty-five, with an average of 7.7 performances during the school year.

To determine if the number of performances each school year had anything in common with the percentage rate of student participants in the program the percentage rates, of each respondent, were grouped and averaged according to the number of performances given. The student participation percentage averages and the corresponding number of performances are shown in Table twenty-five.

TABLE 25

NUMBER OF PUBLIC PERFORMANCES EACH SCHOOL YEAR AND THE CORRESPONDING STUDENT PARTICIPATION PERCENTAGE AVERAGES

Grade Levels	Average Per cent of Student String Participation for Respondents having the following number of performances	Number of Respondents
Grade School . . (Grades 1-6)	1-2 . . . . . 1.84	12
	3 . . . . . 2.07	9
	4 and above 2.14	5
Junior High. . . (Grades 7-9)	1-3 96	7
	4-5 . . . . . 1.36	14
	6 and above 1.19	5
High School. . . (Grades 10-12)	1-4 24	3
	5-8 93	18
	9 and above 69	8

It is interesting to note in Table twenty-five the steady rise in student participation in stringed instruments at the grade school level as the number of performances increase. When comparing this data with that received for the grade school level in Table twenty-four some important discoveries are made. As was noticed earlier, Table twenty-four shows that the average number of performances each school year for the grade school level is 2.7. However, Table twenty-five shows, according to the grade school orchestras surveyed in this study, that grade school orchestras with four or more performances each school year have the highest student string participation. Therefore, these figures indicate that student participation in the stringed instrument program at the grade school level would increase if the average number of 2.7 performances was increased by one or two each year.

The junior high and high school student percentage rates presented in Table twenty-five show that too many performances each year can be detrimental. However, it is noticed, in Table twenty-five, that too few performances a year is far more detrimental to the per cent of student participation than too many performances. According to Table twenty-four the average number of performances given each year by the junior high and high school respondents of this study correlate with the number of performances, in Table twenty-five, that received the highest student participation rate.

Therefore, it would seem that the junior high and high school respondents of this study are making proper use of the performance medium as it relates to student participation in the stringed instrument program.

Question Twenty-two

Name a typical composition that was performed in public by your grade school, junior high, or high school orchestra during the 1965-66 school year.[1]--This was asked so that the musical maturity of the organizations surveyed could be noted. The following is a partial list of compositions given for each of the three grade levels. It will be noticed that the majority of the compositions at each level are generally considered to be stimulating both musically and technically.

grade school - Bach, "Chorales"
"Minuet in G Minor" (Jurey)
Bartok, "Five Pieces for Younger Orchestra"
Farish, "Concerto Grosso"
Handel, "Air from the Occasional Overture"
Haydn, "Andanta from the Surprise Symphony"
Issac, "Activity Folio"
"Two Chorales"
Muller-Rusch, "Performance Books"
Purcell, "Rigandon" (Jurey)
Tchaikovsky, "Marche Slave" (Watters)
Williams, "Symphony for Young People"

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[1]Robert Y. Hare in "The Art of Programming," (The Instrumentalist, Evanston, Ill., Dec., 1960. p. 27) presents some helpful information in determining what should be performed in public.

junior high - Cacavas, "Days of Glory"
Diemer, "Youth Overture"
Gliere, "Russian Sailors Dance"
Haydn, "Andante from the Surprise Symphony"
"Symphony in D, Imperial"
Issac, "Gypsy Overture"
"Russian Chorle and Overture"
Johnston, "Bunker Hill Fantasy"
Telemann, "Don Quixote"
Tchaikovsky, "Marche Slave"
Vivaldi, "Violin Concerto in A Minor"
"Concerto Grosso in D Minor"

high school - Bach, "Brandenburg Concerto No. 3"
Beethoven, "Egmont"
"Symphony No. 1"
"Symphony No. 6"
Brahms, "Academic Festival Overture"
"Symphony No. 1"
Dvorak, "New World Symphony"
"Symphony No. 4"
Frescabaldi, "Toccata and Fugue"
Handel, "Overture to the Royal Fireworks Music"
Haydn, "London Symphony"
Ives, "Symphony No. 2"
Mussorgsky, "Night on Bald Mountain"
Mozart, "Symphony No. 40"
Reigger, "Dance Rythms"
Rimsky-Korsakov, "Russian Easter Overture"
Sibelius, "Symphony No. 2"
Shostakovich, "Symphony No. 5"

CHAPTER VI

TEACHER QUALIFICATION DATA

Question Twenty-three

How many teachers are employed in your stringed instrument and orchestra program?[1]--The number of full-time, half-time, and less than half-time teachers employed is given in Table twenty-six. Also presented in Table twenty-six is the corresponding per cent of student participation in stringed instruments for districts hiring full-time teachers, half-time teachers, or less than half-time teachers.

TABLE 26

NUMBER OF FULL-TIME, HALF-TIME, AND LESS THAN HALF-TIME TEACHERS EMPLOYED AND THE CORRESPONDING PER CENT OF STUDENT PARTICIPATION

Teachers Employed	Number of Respondents	Number of Teachers	Corresponding Per cent of Students Participating	Number of Respondents Averaged[a]
Full-time. . .	50	141	4.69	14
Half-time. . .	13	24	4.53	1
Less than Half-time. . .	13	64	2.99	4

[a]Respondents in this column completed sufficient information to determine the average per cent of participation.

[1]John T. Roberts in "The Teacher and His Attitudes," (Orchestra

It is noticed in Table twenty-six that districts employing full-time teachers in their stringed instrument and orchestra programs have the highest per cent of student participation.

Several respondents reported that their districts hire about an equal number of full-time and half-time teachers. The student participation percentage rates were averaged from these districts and found to be 4.29 per cent. Districts hiring full-time and less than half-time teachers, it was found, have an average participation rate of 3.73 per cent. Those hiring an equal number of full-time, half-time, and less than half-time teachers have an average percentage rate of 4.14. These figures, and those in Table twenty-six, seem to clearly indicate that the higher percentage rates of student participation in stringed instruments are common to districts hiring full-time string and orchestra teachers.

To ascertain if the pupil-teacher ratio varies with the size of the district the ratios shown in Table twenty-seven were determined. Also in Table twenty-seven the relationship between district size and the corresponding average number of teachers and students is shown.

News, Cleveland, Ohio, Sept., 1963. p. 5) states that "any program in education is as effective as the teachers who conduct it from day to day in their classrooms. The ideal music teacher would possess all of the following qualities, and the more successful ones possess many of them. First, he is an able teacher, then, he is humble yet aggressive and open-minded. He is both serious and cheerful; a fine musician; an excellent public relations expert; and the possessor of a fine sense of humor."

TABLE 27

DISTRICT SIZE AND ITS RELATION TO: NUMBER OF TEACHERS PER PROGRAM, NUMBER OF STUDENTS PER PROGRAM, AND PUPIL-TEACHER RATIOS

District Enrollment	1,000-5,000	5,001-10,000	10,001-18,000	18,001-25,000	25,001 100,000
Number of Respondents	12	15	2	2	1
Average Number of Teachers per Program	1.75	3.38	9.83	8.25	17
Average Number of Students per Program	138	316	669	446	2503
Total Number of Teachers	21	93	19.66	16.5	17
Total Number of Students in Strings	1657	4739	1338	911	2503
Pupil-Teacher Ratios	79-1	93-1	68-1	55-1	147-1

Table twenty-seven shows, according to the districts surveyed in this study, that pupil-teacher ratios remain about the same except for the very large districts of 25,000 to 100,000 in enrollment. Also shown is the steady rise, as the districts get larger, in the number of students and teachers involved in individual district stringed instrument and orchestra programs.

Question Twenty-four

Of how many of these teachers is each of the following statements correct? - have eight or more semester hours in stringed instruments, have completed some graduate work, have a masters degree in music, have completed some work beyond the masters degree, have had professional experience in music other than teaching.--Table twenty-eight shows the number and per cent of the teachers surveyed meeting each qualifying statement.

TABLE 28

NUMBER AND PER CENT OF THE TEACHERS SURVEYED MEETING EACH QUALIFYING STATEMENT

Qualifying Statement	Number of Respondents[a]	Number of Teachers	Per cent of Teachers Qualifying in each Area
Eight or more Sem. Hours in Stringed Instruments.	33	124	55.36
Completion of some Graduate work.	49	173	77.23
Masters Degree in Music	47	134	59.82
Completion of some Graduate work beyond Masters Degree	35	77	34.38
Professional Experience in Music other than Teaching	43	128	57.14

[a]Fifty-two respondents reported a total of 224 teachers.

According to Table twenty-eight stringed instrument teachers surveyed in this study met the qualifying statements in this order:

first - 77.23 per cent have completed some graduate work,[1]
second - 59.82 per cent have masters degrees in music,
third - 57.14 per cent have had professional experience in music other than teaching,
fourth - 55.36 per cent have had eight or more semester hours in stringed instruments,[2]
fifth - 34.38 per cent have completed some work beyond the masters degree

In order to determine if the teacher's qualification influenced the rate of student participation in stringed instruments the per cent of qualification for all the teachers was compared with their student participation percentage rates. Table twenty-nine shows the outcome of this comparison.

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[1]Robert House in Instrumental Music for Today's Schools, p. 277-278, suggests to those doing graduate work that "Specific competence must be sought rather than credits and grades . . . . The director needs further study to remedy his shortcomings and to pursue special interests as they develop. This may take the form of graduate degree work, and in such a case, care must be exercised in the choice of school and the selection of a project . . . . The extent of . . . . such activity is to be measured by this test: will the time spent finally hamper or enhance the director's program of instruction?"

[2]Karl Gombert in "A Shortage of String Players: Why?" (The Instrumentalist, Evanston, Ill., Feb., 1967, p. 35) states that ". . . if we want string players we have to produce and hire string teachers." He suggests that the following will help the cause of string teaching: (1) try to instill love of music and teaching into high school musicians (2) work with college level to offer scholarships to potential string teachers (3) require more string training in college for band people (4) urge administrators and music supervisors to find teachers with string experience as well as band experience.

TABLE 29

TEACHER QUALIFICATION AND RELATED STUDENT PARTICIPATION PERCENTAGES

Per cent of Teacher Qualification[a]	Number of Respondents	Average Per cent of Participation in Stringed Instruments	Number of Teachers
0 - 20%	2	4.44	6
21 - 40%	7	4.43	28
41 - 60%	11	3.85	43
61 - 80%	7	4.56	14
81 - 100%	3	4.27	20

[a]Per cent of teacher qualification based on the five qualifying statements given in Table twenty-eight.

The figures given in Table twenty-nine are rather startling, indicating that teacher qualification in the areas surveyed did not influence the student participation rates. This points out that teachers qualifying in one or two of the qualification areas have maintained and promoted a stringed instrument program as well as teachers qualifying in all the areas. This indicates that other factors, such as, the string teacher's personality, experience and communicative ability play an important role in developing a successful stringed instrument and orchestra program.

Question Twenty-five

How long have you been employed in your present position?--To ascertain if the teacher's length of tenure influences the percentage rate of students participating in stringed instruments the following comparative study, shown in Table thirty, was made.

TABLE 30

LENGTH OF TENURE OF RESPONDENTS AND CORRESPONDING PERCENTAGE RATES OF STUDENT PARTICIPATION IN THE STRINGED INSTRUMENT PROGRAM

Years Service	Number of Respondents	Average Per cent of Student Participation in Stringed Instruments
0 - 3	3	4.10
4 - 7	5	4.97
8 - 12	13	3.74
13 - 16	4	4.00
17 and over	6	4.93

It is interesting, and rather startling, to note that there is no noticable difference in student participation between those having a long or short tenure. This would indicate, with the shorter tenures, that the tenure length of the director preceding the respondent has an influence on the student participation rates.

Question Twenty-six

How long was the tenure of the person who preceded you in your position?--In order to determine if the tenure length of the director preceding the respondent influences student participation the data presented in Table thirty is given in Table thirty-one along with average tenure lengths of the directors that preceded those responding.

TABLE 31

STUDENT PARTICIPATION PERCENTAGE RATES AND CORRESPONDING LENGTHS OF TENURE FOR RESPONDENTS AND THEIR PREDECESSORS

Years Service	Number of Respondents	Average Per cent of Student Participation in Stringed Instruments	Predecessor's Average tenure Length
0 - 3	3	4.10	5.89 years
4 - 7	5	4.97	7.80 years
8 - 12	13	3.74	4.38 years
13 - 16	4	4.00	2.67 years
17 and over	6	4.93	11.00 years

Table thirty-one shows that the tenure length of the directors preceding those responding in this study did not directly influence the rate of students participating in stringed instruments. However, it is assumed that if a larger number of respondents would have had three years or less tenure, preceded by a tenure of three years or less, the percentage rate of participation for the first classification in Table thirty-one would have been lower than 4.10 per cent. This assumption is made on the grounds that two or three years is usually not enough time for a director to develop a well organized orchestra program. Changes this frequent usually make program continuity difficult to realize.

The majority of the respondents answering questions twenty-five and twenty-six had a tenure of eight years or longer.[1] These same respondents were preceded by a director with an average tenure of 6.02 years. Both of these tenure lengths are longer than the five years generally recognized as the minimum for building a strong orchestra program. These tenure lengths and the data presented in Tables thirty and thirty-one indicate that once a program is established a change of directors every six to eight years, provided it is to an equally capable one, does not cause a lack of continuity in the program that lowers student participation in stringed instruments.

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[1]Justin Gray and Ralph Matesky in "The Development of the High School Orchestra in the State of California," (American String Teacher, Minneapolis, Minn., Spring, 1964. pp. 12-17) state that in most instances it is recognized that a minimum of five years is necessary to build a strong orchestra program. Their survey of California orchestra programs revealed "that 126 out of 261 music directors had been employed for three years or less." They feel that this is a vital factor in limiting the development of a strong program, stating that "if the schools are unable to hold music directors in their positions (possibly because of salary or working conditions) long enough to develop the kind of continuity of planning necessary, we will always be struggling to build orchestras and strong music programs."

CHAPTER VII

RESPONDENTS' PROGRAM SUMMATIONS

Question Seven

What percentage of your students show interest beyond the public school program by attending concerts, taking private lessons, and participating in musical activities outside of school?[1]--Table thirty-two shows the percentages given by each respondent and the respondents' corresponding student participation rates.

TABLE 32

EACH RESPONDENT'S PER CENT OF PARTICIPATING STRING STUDENTS SHOWING MUSICAL INTEREST BEYOND THE PUBLIC SCHOOL PROGRAM AND THE CORRESPONDING STUDENT PARTICIPATION RATES IN THE STRINGED INSTRUMENT PROGRAM

Per cent showing Musical Interest	Number of Respondents	Corresponding Participation Percentage Average	Number of Participation Percentages Averaged[a]
0 - 5%	1	4.52	1
6 - 15%	10	4.18	6
16 - 25%	12	4.60	6
26 - 40%	7	4.03	5
45 - 60%	6	5.38	1
65 - 75%	5	3.80	2
80 -100%	3	2.57	3

[a]Respondents in this column completed sufficient information to determine the average per cent of participation.

[1]It was felt that question seven of the survey form should be analyzed in this chapter since its broad scope tended to make it a program summation question.

According to Table thirty-two high student musical interest beyond the public school program is not indicative of high student participation rates in stringed instruments. This indicates that student interest in the school program itself is of prime importance in attracting and maintaining high student participation percentages.

Question Twenty-seven

In summary, if there has been an increase or decrease in your stringed instrument enrollment, to what do you attribute this change?--A list of seven positive and seven negative points were constructed following question twenty-seven for the respondent to check. The frequency that each point was checked is given in Tables 33A and 33B. Table 33A presents the positive points checked while Table 33B shows the negative points checked.

TABLE 33A

FACTORS CONTRIBUTING TO INCREASED ENROLLMENT IN STRINGED INSTRUMENT PROGRAMS

Factors	Number of Respondents Checking each Factor
Better Equipment and Rehearsing Area	10
Increase in Number of School-owned instruments	14
Increased Administrative Approval of Program	22
Better Schedule for Rehearsing	14
Increased Public Approval and Support of Program	33
Better Qualified Teachers	22
Other Factors	11[a]

[a]The other factors mentioned were as follows: music faculty support, better method of teaching, pre-stringed instrument program in third grade, larger school enrollment, enthusiasm, continued effort with no breaks and no change in teaching staff, dedication, stress on stringed instruments, more opportunities for orchestras to perform on radio, television, etc.

Table 33A shows that the respondents in this study feel that their stringed instrument enrollment has increased in the following order of importance:

first - through increased public approval and support of the program,
second - better qualified teachers,
third - a better schedule for rehearsing and an increased number of school-owned instruments,
fourth - other factors given in the footnote of Table 33A,
fifth - better equipment and rehearsing area

This list of contributing factors, suggested by the respondents in the order given, points out several essential characteristics that are common to successful public school orchestra programs.

TABLE 33B

FACTORS CAUSING A DECREASE IN STRINGED INSTRUMENT ENROLLMENT

Factors	Number of Respondents Checking each Factor
Lack of Equipment and poor Rehearsing Area	0
Decrease in Number of School-owned instruments	0
Decreased Administrative Approval of Program	2
Lack of Available School time for Rehearsing	3
Decreased Public Approval and Support of Program	0
Lack of Qualified Teachers	1
Other Factors	2[a]

[a]The other factors mentioned were as follows: decrease in high school as counselors fill up schedules with other subjects, loss of individual contacts by teaching in too many schools, three different teachers in six years time, increase pressures upon students time, stringed instrument program became so strong it was killing athletics which resulted in cutting back the stringed instrument program.

According to Table 33B several respondents in this study feel that their decrease in stringed instrument enrollment is caused by lack of available school time for rehearsing. Several other factors mentioned, in Table 33B, as causing stringed instrument enrollment decreases are; decreased administrative approval of the program, other factors given in the footnote of Table 33B, and lack of qualified teachers. These factors are usually indicative of a weak and struggling orchestra program. The more numerous these factors, the weaker the program usually becomes.

Question Twenty-eight

What one factor would you say has contributed the most to the success of your stringed instrument program?--In order to more fully grasp the spirit and significance of the respondents' answers to this question the following list of quotations is given.

> "Our location is in a culturally rich area, parents are college grads and can afford lessons, good instruments, etc."
>
> "Successful teachers in grade and junior high programs, both in subject matter and personality"
>
> "A sympathetic, understanding, and vitally interested department head, a continuity of training from elementary to high school which assures quality but does not restrict innovation on part of individual teacher"
>
> "Selling a better quality product that would stimulate better public and administrative response"

"Effective teaching, a long tradition of orchestra activity in our community, good public relations"

"Community interest, staff interest, continuous program of activities, private teaching"

"Qualified string teachers and private lessons as well as good teaching materials must be high on the list. Good quality instruments, adequate rehearsal time and good rehearsal space should not be overlooked."

"Good program of selecting students in the beginning, . . . good private teachers in the community"

"Having special string teachers in the elementary schools"

"Enthusiasim" (This statement was made many times.)

"Insisting on only orchestras being formed in the elementary schools"

"Community support which in turn makes for administrative support"

"An effort on the part of teachers and administration to promote strings and build orchestras"

"A vital recruiting program, highly motivated teachers, pride"

"The new Suzuki approach has been a great stimulas."

"My blood, sweat and tears for over twenty years"

"Experience"

"Just plain stubborness; I'm too . . . ornery to tangle with. As the result, the orchestra program is too big to get rid of and too enthusiastic to squelch."

"Good teachers and superior teaching and all of us working together"

"This is a personal selling point, . . . students must be sold on strings. Everyone wants to play drums, quitars, trumpets, clarinets, and flutes. (in that order) Being a string specialist, I show enthusiasm."

"We have very strong administrative and Board of Education support, plus teachers who know what they are doing, plus tremendous community interest and approval" (This type of statement was made several times)

"Hard work" (This statement was made many times)

"Initiation of pre-string program in third grade in 1962. As students show interest in standard instruments they are permitted to start throughout the year. Instrument used is a two-stringed plastic uke tuned to "D" and "A"; costs about $1.00"

"Having instruments available to rent to students"

"Organization"

"Caliber of high school orchestra"

This list of quotations and the data given in Tables 33A and 33B indicate that a successful public school orchestra program needs enthusiastic effective teaching that is supported by a vitally interested community and administration.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

Summary

The fifty-seven public school orchestra programs surveyed in this study were analyzed in the areas of: enrollment practices, teaching practices, teaching methods, physical facilities, rehearsals and concerts, and teacher qualification. In addition, each respondent's program summation was analyzed.

In the area of enrollment practices it was found that the fifty-seven respondents have an average of 3.48 per cent student participation in stringed instruments. Division of this figure for the three grade levels reveals 1.97 per cent participation at the elementary level and 1.00 per cent and .51 per cent at the junior high and high school levels.

It was noticed that districts over 18,000 in student enrollment do not come up to the average 3.48 per cent student participation in stringed instruments. Districts with fewer than 18,000 students enrolled have a higher student participation percentage than the average.

The per cent of increase during the past five years and during the past ten years in student participation in stringed instruments for those surveyed is quite high. Between 1961-62 and 1966-67 forty-three of the respondents had a 33 per cent gain; while the gain for these same respondents between 1956-57 and 1966-67 was 90.85 per cent. It was found that for the ten year period, 1956-57 through 1966-67, the per cent of increase was greatest for districts with fewer than 18,000 students enrolled. In the five-year period, between 1961-62 and 1966-67, districts of 18,000 students and over had the greatest per cent of increase.

It was found that of the fifty-seven respondents twenty-nine start their stringed instrument program in the fourth grade. Other grades where the stringed instrument program is frequently started are the fifth, with thirteen respondents, and the third, with seven respondents. The seven districts starting their stringed instrument programs in the third grade are all under 10,000 in enrollment.

Respondents surveyed in this study recruit stringed instrument students most frequently through the avenues of interest, music tests, and school grades. The size of the respondent's district, it was found, has very little influence on the choice of the recruitment avenues used. The following are recruitment avenues having the highest corresponding percentage rates of student participation in stringed instruments.

It will be noticed that the percentage rates given are well above the 3.48 per cent participation average for this study.

> other avenues[1]- 6.82 per cent student participation (pre-stringed instrument classes, teaching entire classrooms, physical characteristics, etc.),
>
> recommendation - 5.63 per cent student participation (recommendation of music teacher, classroom teacher, etc.),
>
> school grades - 4.99 per cent student participation

It was found that districts including intelligence tests, music tests, and school grades as a part of their enrollment process had the greatest per cent of increase in student participation for the period between 1961-62 through 1966-67.

The majority of the respondents surveyed base their programs on school class instruction. Almost half of these respondents rely on private instruction outside of school as an additional instructional type. The larger districts studied rely less on private instruction outside of school than the smaller districts. Districts with the highest per cent of student participation in stringed instruments base their instruction programs primarily on school class instruction. However, during 1961-62 through 1966-67 the greatest enrollment increase was made by districts embodying in their programs private instruction outside school and private instruction inside school in addition to school class instruction.

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[1]Recruitment and enrollment avenues used by respondents but not listed individually due to infrequent use.

In the area of teaching methods it was found that respondents embody the "D" approach, rote approach, family instrument approach, and the arco note-reading approach in their materials more than any other approaches. Districts with the highest student participation percentages include the following approaches in their teaching process:

half-note approach - 5.26 per cent participation,
whole-note approach - 5.25 per cent participation,
pizzicato note-reading approach - 4.83 per cent participation,
"D" approach - 4.36 per cent participation,
family instrument approach - 4.16 per cent participation

Districts with low student participation percentages include the "C" approach and the unlike instrument approach in their teaching process.

Respondents changing beginning stringed instrument materials during the past six years number thirty-nine. However, only eighteen of these respondents indicate that the change in materials involved any approach change. Approach changes found to be made most frequently are: "C" approach to the "D" approach and note approach to rote approach.

Seventeen of the respondents are only partially satisfied with their current materials, while four are completely satisfied. Thirty respondents indicated that they are satisfied with the results of their current materials. Those partially satisfied have a corresponding average student participation in stringed instruments of 3.30 per cent: while those not satisfied have 1.10 per cent. The thirty respondents indicating that they are satisfied have an average of 2.16 per cent participation.

The majority of the respondents surveyed in this study start their full orchestra either in the fifth or seventh grade. It was found that most of these respondents start their full orchestra program within one to three years after the establishment of their stringed instrument programs. The average lapse of time, before starting the full orchestra, for respondents starting their stringed instrument programs in the third grade, is 2.38 years. Respondents starting their stringed instrument programs in the fourth grade wait an average of 1.77 years before starting the full orchestra; while those starting in the fifth wait an average of 1.54 years before establishing the full orchestra.

It was noticed that the majority of the orchestra directors surveyed at each grade level, elementary, junior high and high school, choose the Classical period as the period from which the bulk of their repertoire is taken. Grade school directors basing their repertoires first in the Classical period,--followed by Baroque, Romantic, Twentieth Century (serious), Twentieth Century (pop), and Twentieth Century (semi-classical)--have an average student participation of 2.70 per cent.[1] Junior high directors basing their repertoires in the following order of importance have an average student participation of 1.52 per cent:[2]

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[1]The average per cent of student participation in stringed instruments given for all grade school respondents in this study is 1.97.

[2]The average per cent of student participation in stringed instruments given for all junior high respondents in this study is 1.00.

Baroque; Classical; Romantic; Twentieth Century (pop); Twentieth Century (serious) and (pop). High school directors have an average of 1.25 per cent[1] student participation in stringed instruments when basing their repertoire in the following order: Classical; Baroque; Twentieth Century (pop); Twentieth Century (semi-classical).

In the area of practices involving physical facilities it was found that the districts surveyed have a normal pattern of rehearsal area change. The grade school levels use diversified rehearsal area types, such as; cafetoriums, gymnasiums, auditoriums, classrooms, etc.; while the junior high and high school levels mainly use the rehearsal room type. Most of the respondents feel that their rehearsal area is adequate in size and properly located.

Respondents answering that they have an adequate supply of school owned instruments number fifty-three. These same respondents have an average student participation in stringed instruments of 4.38 per cent. Those that do not have an adequate supply of school owned instruments number four and have a corresponding student-participation average of 2.88 per cent.

In the area of rehearsal and concert practices, most of the grade school stringed instrument programs surveyed rehearse once each week for an average of forty-three minutes.

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[1]The average per cent of student participation in stringed instruments for all high school respondents in this study is .51.

Junior high orchestras surveyed rehearse between two and five times each week for an average rehearsal length of fifty-four minutes; while the majority of the high school orchestras rehearse for an average of fifty-seven minutes five times each week. It was found that the average weekly rehearsal time for all respondents at the grade school level is sixty-one minutes. The average weekly rehearsal time for the junior high respondents surveyed is 194 minutes; while the high school respondents report an average weekly time of 240 minutes.

Rehearsal placement during the day varies greatly at the grade school level with only twenty-six respondents actually having school-time rehearsals. Many respondents at this level hold rehearsals before school, after school, or during the lunch hour. At the junior high and high school levels a shift to school-time rehearsals is noticed, with forty-one junior high and forty-six high school respondents holding rehearsals during school time.

The grade school respondents surveyed have an average of 2.7 performances each school year. Respondents answering at the junior high level have an average of 4.4 performances each year; while high school respondents have an average of 7.7 performances for the school year.

In the area of teacher qualification it was found that districts employing full-time teachers in their stringed instrument and orchestra program have an average of 4.69 per cent student participation.

Districts employing teachers half-time, less than half-time, or a combination of these, vary in their corresponding rates from 2.99 per cent to 4.53 per cent.

Pupil-teacher ratios were established for the various district sizes and found to be about the same, except for the very large districts of 25,000 to 100,000 in enrollment. In this classification the pupil-teacher ratio doubled over the average pupil-teacher ratio of all the other districts surveyed.[1]

It was found that 52 of the districts surveyed in this study employ a total of 224 stringed instrument and orchestra teachers. These teachers are qualified as follows:

> 173 teachers, or 77.23 per cent, have completed some graduate work,
>
> 134 teachers, or 59.82 per cent, have masters degrees in music,
>
> 128 teachers, or 57.14 per cent, have had professional experience in music other than teaching,
>
> 124 teachers, or 55.36 per cent, have had eight or more semester hours in stringed instruments,
>
> 77 teachers, or 34.38 per cent, have completed some work beyond the masters degree

The majority of the responding directors have a tenure of eight years or longer.

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[1]Only one respondent in the large enrollment classification completed sufficient information to determine the pupil-teacher ratio.

These same directors, it was found, were preceded by directors whose average tenure is 6.02 years.

Through analysis of each respondent's program summation it was found that the majority of the directors feel that 15 to 40 per cent of their students participate in musical activities outside of school.

The factors contributing to increased stringed instrument enrollment listed below were given by the following number of respondents: increased public approval and support of the orchestra program (33); increased administrative approval of the program (22); better qualified teachers (22).

The factors listed below are cited as causes of decreases in stringed instrument enrollment for the number of respondents given: lack of available school time for rehearsing (3); decreased administrative approval of the program (2); lack of qualified teachers (1).

Conclusions

Through analysis of the fifty-seven orchestra programs in this study specific conclusions are offered in the areas of: enrollment practices; teaching methods; physical facilities; rehearsals and concerts; teacher qualification. In addition, several general conclusions are based on analysis of each respondent's program summation.

The average dropout rate for stringed instrument students is 50 per cent from the grade school level to the junior high school level. The dropout rate from the junior high school to the high school is 25 per cent of the total stringed instrument enrollment or 50 per cent of the junior high stringed instrument enrollment. If more students are to be retained in the stringed instrument program research needs to be done to determine the specific causes of dropout.

It was found that districts with a student enrollment of 1,000 to 18,000 are more likely to have a higher per cent of student participation in stringed instruments than those over 18,000. However, it was noticed, between 1961-62 and 1966-67, that districts with over 18,000 enrolled had the greatest per cent of increase in student participation, indicating that the larger districts are beginning to tap their student enrollments.

Only seven of the districts surveyed in this study start their stringed instrument program in the third grade. It is interesting to note that all of these districts are under 10,000 in enrollment. It is assumed that expansion of the stringed instrument program to the third grade was accomplished by these districts without hiring many new teachers.

This assumption is made on the grounds that the financial undertaking for program expansion is too great for most districts.[1]

It can be suggested that directors wishing to maintain a high participation percentage in stringed instruments should employ the following recruitment avenues in their enrollment processes, since these avenues are common to districts with a high per cent of participation: "other avenues"[2] - (enrollment through pre-stringed instrument classes, teaching entire classrooms, physical characteristics, etc.); "recommendation" - recommendation of music teacher, classroom teacher, etc.; "school grades" - students maintaining a certain grade point are recruited.

Districts basing their instruction programs primarily on school class instruction have the highest corresponding per cent of student participation. However, districts making the greatest enrollment gains during the period from 1961-62 through 1966-67 included private instruction outside of school and private instruction inside of school in their programs. This indicates the growing importance of private instruction to the successful public school orchestra program.

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[1]As was pointed out earlier in this study the lack of third grade stringed instrument programs in the larger districts is no doubt due to the financial problems involved in hiring enough teachers for this expansion.

[2]Recruitment and enrollment avenues used by respondents but not listed individually due to infrequent use.

In the area of teaching methods, the half-note, whole-note, pizzicato note-reading, and the "D" approaches are used in districts with a high per cent of participation in stringed instruments. Districts with low participation rates use the "C" approach and the unlike instrument approach. This indicates that the homogeneous class approaches, like the "D" approach, are common to higher participation percentages, while the heterogeneous approaches, such as the "C" approach, are common to lower participation percentages.

It was found that respondents reporting satisfaction in their beginning stringed instrument materials have an average student participation of 2.16 per cent. Respondents dissatisfied with their materials had a student participation of 1.10 per cent; those partially satisfied had an average of 3.30 per cent. Those who were satisfied with their materials are definitely lower in student participation than those who were partially satisfied. This suggests that satisfaction in beginning materials might lead to stagnation of the program, since satisfaction often limits the desire for something better.

It was concluded that the average per cent of student participation at the grade school level rises considerably if grade school directors make their repertoire selections from the various periods in the following order: Classical, Baroque, Romantic, Twentieth Century.

It was found that junior high student participation in stringed instruments is much higher for respondents who make their repertoire selections from the following order of importance: Baroque, Classical, Romantic, Twentieth Century.

High school student participation also is much higher when the director chooses his repertoire from the various periods in a particular order of importance. The order of selection for the high school level is, first Classical, followed by Baroque, and then Twentieth Century.

It was found that many of the compositions from the musical periods used by the three grade levels are not authentic editions but are good arrangements for the particular grade level at which the composition is used. As the grade level advanced authentic editions become more numerous.

It is notable that directors from all three grade levels list either the Classical or Baroque periods as the source from which most of their repertoire is taken. Possible reasons are: the level of technique is appropriate; the music is not highly chromatic and much of it is in "easy" keys; the stringed instruments play most of the time; much of the standard concert repertoire (including "the great masterpieces") is taken from these periods.

In the area of physical facilities it was concluded that adequately sized and properly located rehearsal rooms have little in common with the rate of student participation in stringed instruments.

However, districts with an adequate supply of school owned instruments have a considerably higher student participation rate than those not having an adequate supply. This might be taken as an indication that the cost of instruments is a deterrent for some pupils who would otherwise receive instruction.

In the area of rehearsal and concert practices, the length of rehearsal time has little in common with the percentage rate of students participating in stringed instrument instruction. It was also concluded that placement of the rehearsal during the day at the grade school level has little in common with student participation rates. However, at the junior high and high school levels a variance in participation is noticed as rehearsal placement varies. This variance indicates that the junior high and high school programs with the highest student participation rates have their rehearsals during school time.

Through analysis it was concluded that grade school orchestras in this study having four or more performances each school year have the highest student participation. Junior high and high school respondents presenting four or five and five to eight performances respectively have the highest student participation rates. It is noticed at these levels that additional concerts each year pull the student participation rate down. However, presenting too few concerts each year is apparently far more detrimental to the per cent of student participation than too many performances.

In the area of teacher qualification it was concluded that high student participation rates are common to districts hiring full-time stringed instrument and orchestra teachers.

Teacher qualification in the areas surveyed does not influence student participation rates. This indicates that other factors, such as the teacher's personality and communicative ability, are possibly more important than a very high level of technical competence in developing a successful stringed instrument and orchestra program.

It was further concluded that the length of a teacher's tenure does not noticably influence student participation rates. However, it was assumed that if a larger number of the teachers responding had three years or less tenure, preceded by a predecessor of three or less, the continuity of their programs would have been interrupted enough to influence participation rates. However, since the majority of the respondents had a tenure of eight years or longer and had been preceded by an average tenure of 6.02 years the lack of continuity influence is not noticed.[1] This indicates that once a program is established a change of directors every six to eight years, provided it is to an equally capable one, does not cause a lack of continuity in the program that lowers student participation.

It was found that a high percentage rate of student participation in musical activities outside of school is not indicative of high student participation rates in stringed instruments in school.

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[1]A period of five years is generally recognized as the minimum for building a string orchestra program.

This indicates that student interest in the school program itself is of prime importance in maintaining high participation rates in stringed instruments.

The majority of the respondents in this survey concluded in their program summations, in the order given, that their stringed instrument enrollment has increased because of: increased public approval and support of the program; better qualified teachers; increased administrative approval of the program. Numerous factors of this nature, it was found, are common to successful public school orchestra programs.

A few respondents concluded in their program summations, in the order given, that their stringed instrument enrollment has decreased because of: lack of available school time for rehearsing; decreased administrative approval; lack of qualified teachers. These factors are usually indicative of a weak and struggling orchestra program. The more numerous factors of this nature become, the weaker the orchestra program. These factors causing a decrease in enrollment, and those factors listed as contributing to increased stringed instrument enrollment, were expanded and clarified by many of the respondents through explanatory statements given earlier in this study. Through analysis of these factors and the explanatory statements concerning them it was concluded that a successful public school orchestra program needs enthusiastic effective teaching, supported by a vitally interested community and a vitally interested administration.

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A P P E N D I X - I

APPENDIX - I

Letter Sent to each Director whose Orchestra Program met the Selection Criterion

One hundred public school orchestra directors are receiving the enclosed string survey. Each of these directors has had his orchestra in performance at least once during the past six years at a professional music conference, clinic, or workshop.

The objective of the string survey is to gather data for a dissertation at the University of Oklahoma, which will determine, upon analysis, practices which are common to successful public school string programs. When these practices have been determined and analyzed they should be helpful to teachers and administrators in starting string programs or strenghtening existing programs.

I sincerely appreciate your help in this area in which we both are so interested. I will be happy to send, on request, the results of this study, which should be available the summer of 1968.

Sincerely,

Roger W. Strong

Approved by _____
Committee Chairman

String Survey Form

String Enrollment

1. What is the total student enrollment of your school district?
   _____

2. How many of these students in your district are participating in the string program? _____grades 1-6 _____grades 7-9
   _____grades 10-12

3. What was the total number of students participating?
   _____five years ago _____ten years ago

4. At what grade do you start your string program?
   _____3rd _____4th _____5th _____other (please state)

5. How are students chosen for enrollment in the string program?
   ____school grades
   ____I. Q. tests
   ____music tests
   ____interest
   ____other (please state)
   _____

6. What type of instruction is your string program based on?
   ____in school class instruction
   ____private instruction outside of school
   ____private instruction in school
   ____other (please state)
   _____

7. What percentage of your students show interest beyond the public school program by attending concerts, taking private lessons, and participating in musical activities outside of school?
   ____5% ____15% ____25% ____40% ____other

Methods

8. What basic approaches are embodied in your beginning string materials?
   ____rote (arco)
   ____rote (pizz.)
   ____"D" approach
   ____"C" approach
   ____like instruments (example: all violins)
   ____family instruments (example: all strings)
   ____unlike instruments (example: strings & winds)
   ____whole-note approach
   ____half-note approach
   ____quarter-note approach
   ____note reading (arco)
   ____note reading (pizz.)
   ____other (please state)
   _____

9. Have you changed any of your beginning string materials in the past one to six years? ____yes ____no

10. If you have changed materials what basic approach changes are evident? (please state) example: "C" approach to "D" approach

_____

11. Are you satisfied with the results of your current beginning string materials? ____yes ____no ____partially

12. In what grade are wind, brass and percussion instruments added to the strings for the full orchestra? _____

13. Your orchestra's repertoire is based on the music from the following list of six classifications. Place a number one (1) next to the classification that represents the source of the bulk of your repertoire. Continue to number through six with the classification receiving six representing the smallest portion of your repertoire.

grade school	junior high	high school
____Baroque	____Baroque	____Baroque
____Classical	____Classical	____Classical
____Romantic	____Romantic	____Romantic
____20th Century (serious)	____20th Century (serious)	____20th Century (serious)
____20th Century (semi-classical)	____20th Century (semi-classical)	____20th Century (semi-classical)
____20th Century (pop)	____20th Century (pop)	____20th Century (pop)

Physical Facilities

14. Please check the type of rehearsal areas you have for:

grade school (grades 1-6)	junior high (grades 7-9)	high school (grades 10-12)
____cafetoriums	____cafetoriums	____cafetoriums
____gymnasiums	____gymnasiums	____gymnasiums
____auditoriums	____auditoriums	____auditoriums
____classrooms	____classrooms	____classrooms
____rehearsal rooms	____rehearsal rooms	____rehearsal rooms
____other (state)	____other (state)	____other (state)
_____	_____	_____

15. Are these rehearsal areas adequate in size? ____yes ____no

16. Are these rehearsal areas in the proper location? ____yes ____no

17. Do you have an adequate supply of school owned instruments?
____yes ____no

Rehearsals and Concerts

18. How many times a week do you rehearse?
____grade school ____junior high ____high school

19. How long are your rehearsals? ____min.(grade) ____min.(jr. high)
____min.(high school)

20. During what part of the day do you rehearse?

grade school	jr. high	high school
____school time	____school time	____school time
____before school	____before school	____before school
____during lunch hour	____during lunch hour	____during lunch hour
____after school	____after school	____after school
____other (state)	____other (state)	____other (state)
_____	_____	_____

21. How many times during the school year do your orchestras perform in public? ____grade ____junior high ____high school

22. Name a typical composition that was performed in public last year.
_____grade school
_____junior high
_____high school

Teacher Qualification

23. How many teachers are employed in your string and orchestra program? ____full-time ____half-time ____less than half-time

24. Of how many of these teachers is each of the following statements correct?
____have eight or more semester hours in strings
____have completed some graduate work
____have a masters degree in music
____have completed some work beyond the masters degree
____have had professional experience in music other than teaching

25. How long have you been employed in your present position? _____

26. How long was the tenure of the person who preceded you in your position? _____

27. In summary, if there has been an increase or decrease in your string enrollment, to what do you attribute this change?

____better equipment and rehearsing area
____increase in number of school-owned instruments
____increased administrative approval of program
____better schedule for rehearsing
____increased public approval and support of program
____better qualified teachers
____other (please state) _____

____lack of equipment and poor rehearsing area
____decrease in number of school-owned instruments
____decreased administrative approval of program
____lack of available school time for rehearsing
____decreased public approval and support of program
____lack of qualified teachers
____other (please state) _____

28. What one factor would you say has contributed the most to the success of your string program?

Thank you so much for your time.

_____
signature of respondent

Number of Respondents from each of the Twenty-four States Represented in the Survey

Arizona - 3	Massachussetts - 2	New York - 2
California - 2	Michigan - 3	North Dakota - 1
Colorado - 4	Minnesota - 3	Ohio - 5
Illinois - 5	Missouri - 1	Oklahoma - 2
Iowa - 5	Nebraska - 4	Oregon - 2
Kansas - 3	New Hampshire - 1	Pennsylvania - 1
Kentucky - 2	New Jersey - 2	Virginia - 2
Maryland - 1	New Mexico - 1	Wisconsin - 1

A P P E N D I X - II

APPENDIX - II

Each Respondent's Participation Percentages

TABLE A

Respondent's Number	Participation Percentages at the grade school level	Participation Percentages at the junior high level	Participation Percentages at the high school level	Total
1	1.35	1.81	2.23	5.39
2	B	B	2.40	--
3	B	B	1.14	--
4	B	B	2.70	--
5	B	B	B	B
6	B	B	2.93	--
7	3.67	1.33	.76	5.76
8	B	B	B	B
9	B	B	B	B
10	B	.01	B	--
11	B	.79	.40	--
12	1.10	.89	.49	2.48
13	3.58	3.58	3.34	10.50
14	B	B	1.35	--
15	1.40	.40	.20	2.00
16	2.67	2.07	1.13	5.87
17	1.91	.96	.18	3.05
18	1.82	1.18	.87	3.87
19	.80	1.20	B	--
20	15.23	1.72	B	--
21	B	B	B	B
22	2.35	.88	.63	3.86

Notes:

"B" means that the respondent left that part of the question blank.

When grade and junior high levels were left blank high school percentages were based on high school enrollments only.

When the percentage rates of all three levels are presented for a respondent they have been figured from the respondent's total enrollment.

TABLE A--Continued

Respondent's Number	Participation Percentages at the grade school level	Participation Percentages at the junior high level	Participation Percentages at the high school level	Total
23	1.89	1.09	.49	3.47
24	B	B	B	B
25	1.25	.31	B	--
26	1.61	1.29	.76	3.66
27	2.53	.80	.30	3.63
28	B	B	B	B
29	2.50	.75	.53	3.78
30	.82	.63	.38	1.83
31	1.90	.40	.31	2.61
32	2.85	1.43	.72	5.00
33	1.29	1.07	.47	2.83
34	1.58	.75	.71	3.04
35	2.05	1.95	B	--
36	2.39	1.49	.42	4.30
37	B	B	1.27	--
38	3.60	1.34	.82	5.76
39	6.82	B	B	--
40	B	B	B	B
41	2.31	1.44	.77	4.52
42	B	B	B	B
43	B	B	B	B
44	B	B	1.73	--
45	1.00	.67	.33	2.00
46	2.57	1.29	.67	4.53
47	--	--	--	10.55[a]
48	1.62	.75	.75	3.12
49	1.60	.67	.40	2.67
50	1.88	1.91	1.59	5.38
51	B	B	B	B
52	.71	.70	.27	1.68
53	1.86	.57	.57	3.00
54	3.38	1.50	1.25	6.13
55	2.08	B	B	--
56	B	B	B	B
57	2.43	1.80	.83	5.06

[a]Respondent did not break this total down