1953

A study of the needs of in-service training for elementary teachers in the fundamentals of music.

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http://hdl.handle.net/2144/9453

Boston University
BOSTON UNIVERSITY
COLLEGE OF MUSIC

Thesis

A STUDY OF THE NEEDS OF IN-SERVICE TRAINING
FOR ELEMENTARY TEACHERS
IN THE
FUNDAMENTALS OF MUSIC

by

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(B.M., Eastman School of Music
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submitted in partial fulfillment of the
requirements for the degree of
Master of Music Education
1953
In acknowledgement for the help in carrying out this study, the writer wishes to express her appreciation to all those elementary teachers who so willingly gave of their time to participate in the study.
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CHAPTER I

NATURE AND SCOPE OF THE PROBLEM

Statement of the Problem

The purpose of this study is to determine the needs of In-Service training for the Elementary Teachers in the fundamentals of music.

Source of the Problem

In many schools most of the music teaching must be done by classroom teachers who are anxious to give their children inspired and thorough training but who lack security in teaching music to fulfill this desire. For many of these teachers the only training in music has been the few courses studied in teachers college. Since many teachers colleges are working toward an improvement of their own music courses, future teachers from these training schools should be better prepared, but our concern in this study is not so much with future teachers as with teachers already in-service.

It is hoped through this study, to determine whether there is a definite lack of understanding of the fundamentals of music among elementary teachers. The writer is of the belief that this lack of understanding is one of the basic reasons why such a large percentage of children finish school with little, if no ability, to read and to really
enjoy music.

It is not the writer's desire to lead the reader to believe that the ability to read music is the most essential part of the music program. It is undoubtedly true, however, that the ability to read music can open up a much broader horizon for the children in the field of music. The changing voice makes it necessary for children to engage in part-singing and, certainly, if this singing must be done entirely by rote, it soon becomes a tedious task. Music reading should be and can be a gradual process throughout the grades which may lead to new and enriching experiences in music. However, this study is mainly concerned with the elementary teachers' ability to carry on an interesting and varied program of music in the classroom and it is a workable knowledge of the fundamentals of music which will be one of the greatest aids in this program.

**Justification of the Problem**

That the needs for in-service training exists, is quite evident from the fact that so many educators throughout the country are discussing the problem in education journals, Music Educators meetings and various other sources. Many educators have set up workshops for teachers to give them an opportunity for additional training in the field of music.

An examination of various articles on experiments with workshops in different parts of the country, reveals that
the procedure seemed to be generally the same. First, notice was given of the forthcoming workshop. Teachers were asked to sign up ahead of time and to state briefly the areas of music in which they were interested. As the workshop was built around the teachers' interest, it seemed to be very successful. The teachers were able to carry back to the classroom new materials, methods and ideas to enrich the music program of their children.

The workshops are a very essential part of the growth of a school system. "No school which neglects the growth of its corp can successfully cultivate the growth of its pupils."

However, the program being an outgrowth of the teachers' choice, which often represented only their interests, it was not necessarily what the teachers needed the most. The teachers were apt to pick topics in which they were interested and often topics with which they were already familiar. In only one of these workshops, did the teachers choose an area which would be helpful in gaining a more thorough knowledge of the fundamentals of music. When elementary teachers in Baltimore, Maryland, were asked what skills they thought an elementary school teacher should possess, they ranked some skill at the piano keyboard very high. Therefore, a

1. Barbour, Richmond, "In-Service Growth of School Personnel", National Elementary Principal, October, 1942
One year course in piano class instruction was inaugurated free of charge for any elementary teacher who would profit from instruction on a beginning level. A response to an item on a questionnaire, sent to all participants in the first year class, was that the teachers unanimously recommended that all elementary teachers enroll in a piano class. One of their major reasons for feeling that the classes were a success was that they "really understood, for the first time, the fundamentals of music which they had been trying, not always too successfully, to teach in their classrooms." They had acquired information and skills which could be applied directly to the problems of the classrooms. It was not just that they would be able to teach these fundamentals better, but that these skills would become aids which should enrich their entire music program.

Elementary teachers have proven their interest in bringing an enriched program of music to their classrooms. In all the articles read, the workshops were attended by at least 40% of the teachers and some went as high as 75%. The workshops and in-service training courses have helped the teacher discover herself musically.

One of the reasons that the music program in so many classrooms deteriorates is the lack of musical security in

the mind of the classroom teacher. Many elementary teachers have had only the courses required of them during their teacher training, as music background for teaching elementary school music.

In a study of the entering classes at Salem Teachers College made by T. F. Clifford, it was found that about one-half of the first year students could sing a rote song solo. Only one-fourth of the entire class could sight read fairly well, one-fourth could read somewhat, and one-half could not read at all. Playing experiences on various instruments was reported by less than one-third, most of whom had studied piano one or two years and then stopped. In a recognition test of twenty familiar tunes, the class averaged a knowledge of three songs. During the last four years there have been only three solo voices and not yet has there been a competent pianist.

It is extremely difficult for any prospective teacher to become competent in the fundamentals of music with only the courses she receives in college as her background.

Beth McMellan in a study made of the problem discovered after looking through page after page of employment applications, that practically no one was prepared to play the piano,

lead group singing, or teach music to children on her special grade level.

In most colleges the pattern of required courses in music is generally the same: one course in music theory or fundamentals of music and one course in methods of teaching music at certain grade levels. In only a very few is the ability to play an instrument or to sing listed as a requirement, and then only for kindergarten teachers. The few affirmative answers on music questions seem to have occurred, not from the few congested courses given in college, but from previous knowledge gained before college. Many teachers come away from their courses in music completely confused and with a feeling that music is not for them but only for the talented and trained.

The experiences of this writer, in supervising elementary school music, have convinced her that there is a great need for helping the elementary teacher overcome her insecurity in the teaching of the classroom music. Whether that insecurity lies in inadequate preparation in the fundamentals of music or some area such as inability to freely use her singing voice, it is not possible at this time to determine, but it is hoped through this study to gain a more concise picture of how well the teachers understand the fundamentals of music which they are constantly using and teaching in their classrooms.
Scope of the Problem

A test of the fundamentals of music was given to approximately 150 to 175 elementary teachers. Each teacher was also given a questionnaire on her music background as any previous training, or lack of training, should have a strong bearing on the results of the test.

The teachers tested were in two groups. One group consisted of elementary teachers from Winchester, Shrewsbury, Mansfield, and Framingham, Mass., who took the test on their own time, being asked only that they not look up any of the material contained in the items and that they work carefully. The other group was a heterogeneous group of teachers taken from classes at the Boston University School of Education whose only requirement was that they be regular teachers of elementary school. These teachers were given the test under a time limitation to see if they could quickly recall the items as they would have to do in the actual classroom situation. In a later chapter, results of the two groups taking the test and questionnaire will be analyzed.

Definitions of Terms

In-Service Training: Training given to teachers already in the teaching field with an aim to bring to the teacher new methods, materials and ideas and to aid her in becoming a more proficient teacher in all phases of her teaching.
Fundamentals of Music: The fundamentals of music to be included in this study are those elements of musical notation, rhythm and other technical devices necessary for accuracy in the teaching of elementary classroom music. These fundamentals are listed in Chapter III.

Assumptions Made

It is assumed by the writer that:

1. Elementary teachers have been inadequately prepared to teach music in the classroom.

2. There is a lack of knowledge in the fundamentals of music.

3. The group to be tested is a sufficient sampling and that all teachers taking the test will follow the instructions on the test and will use only the knowledge which they already possess as a basis for their answers.
CHAPTER II

Why the Fundamentals of Music are a Necessity for the Classroom Teacher

"The teacher is the ultimate agent of education. It is he who sets the daily tasks for the pupils or helps them to develop a plan of work. If education is ever to have any genuine influence in shaping character, or giving insight into life, the teacher will be the agent who will carry this influence." ¹

The first statement of the above quotation is of particular importance to this study. No matter how many supervisors are available to the teacher and no matter how much assistance is given, it is the classroom teacher who will exert the greatest influence in the total growth of the child. From the superintendent to the teacher, there is a continual process of planning. Committees set up courses of study and supervisors give out lesson plans, remedial devices, and new techniques, but, it is the teacher who must "set up the daily tasks for the pupils." It is the classroom teacher who is really responsible for the success or failure of the educational program.

How important, then, is the classroom teacher in the development of the music program? It can quite truthfully be said that the elementary teacher is the most important single factor in a successful music program. The music supervisor may be a highly skilled musician and a superior teacher, herself, but she must depend, for the most part, upon the attitudes and abilities of the person who is with the children day in and day out, for the success of the music program.

In some school systems, the above is not so, as children go daily to the special music teacher for their classes in music, but this study is concerned with the situation where all subjects are taught by one teacher. If education is to be for the total growth of the child, then this is by far the best method. The student in this situation has an opportunity to integrate his learning. Music is not remote and unrelated to other subjects in education. Rather, it is closely related to all phases of education and daily life. As stated by D. D. Henry, "Music is a means of general education which encompasses education for inspiration, education for enjoyment, education for emotional expression and education as communication."

We come back then to the elementary teacher who has

the responsibility for the musical growth of the child. We are faced with the biggest problem in music education: that of the ill-prepared classroom teacher. She has a feeling of insecurity which often makes her shy away from the music program or else become a perfect imitator of the supervisor. It is not a matter of being a poor teacher, but rather, she is being asked to present a subject in which musicians spend years to become proficient. With only a course in elementary methods and theory, she is expected to understand it and to present it intelligently and inspirationally to her students. Many times a teacher is unable to present many songs to her class because of her own inability to learn them. She must always take time to go to someone better prepared than herself to learn them and with all she has to do, the result is usually that the songs are put aside. If she wishes to present the themes of new records, she must again turn to others for assistance in learning the themes. Some of her class may make up tunes of their own which they wish to write down; again the teacher must call for help. The list of problems confronting the elementary teacher who has been inadequately prepared in music could go on and on. No matter what the problem seems to be the lack of knowledge of the fundamentals of music stands in the way.

There are five types of experiences in music which the grade teacher has an opportunity to bring to her pupils. These five types are through expressive bodily movement and
dramatization, through listening, through singing, through playing instruments of various kinds, and through creative activities. Most inadequately prepared grade teachers, when confronted with these five possibilities, are immediately on the defensive and are inclined to say that for them these activities would be impossible, but upon second thought they may say that they think they could do the rhythmic work and the listening. As to the other three the teacher usually asks how she can possibly teach singing if she cannot sing herself, how she can teach children to play an instrument if she cannot play one herself or even read a note of music, and how can she handle creative work when she is unable to write down the tunes which the children compose.

These three questions center upon two areas which seem, to this writer, to be the main reasons for the insecurity of the classroom teacher in handling the music. The first one is insecurity in the singing voice and the second is a lack of understanding and usable knowledge of the fundamentals of music. Both of these points attribute greatly to the many failures in the music program. The teacher who cannot sing, or thinks she cannot sing, is perhaps at a greater disadvantage than the one who only lacks the understanding of the fundamentals of music. The teacher who can sing may choose songs at anytime of the day and have music with her class. Her only limitation is to select songs which she already knows. The children may not get much in the way
of understanding note reading or rhythm, but one of the first things which we wish to develop in children is a desire and love for expressing themselves in song. The teacher who is unable to sing is at the greatest disadvantage. Psychologically, it affects her whole attitude toward the music program and often we find that little attempt is made to do anything with music. Some would immediately say that this teacher might teach the songs by playing them on the piano or a simple melody instrument, but even with the simplest melodic line on an instrument, it is necessary to know something of the fundamentals of music in order to learn the tunes both melodically and rhythmically.

This brings us directly to our second point, that of understanding the fundamentals of music. How much can really be done in the classroom music program without an understanding and usable knowledge of the fundamentals of music? It is stated by Mursell\(^1\) that: "If you have the right point of view, the right approach in bringing music to your children, then many seeming impossibilities are at once and amazingly transformed into possibilities". This is undoubtedly true to a certain extent and has been demonstrated many times by elementary teachers. Teachers with a love for music, despite lack of training, manage to give their children very

1. Mursell, James L., Music and the Classroom Teacher, Silver Burdett Co., New York, 1951, p. 71
fine musical experiences. However, these experiences usually follow one channel. The teacher may find that she can do a great deal with records and has many listening periods with her class. The alert supervisor will help this teacher to choose records which can serve more than one purpose. Some of the records may promote responses in the children in expressing the rhythms of the music through bodily movement. Others will be simple songs with melodies which the children will soon be singing along with the record. Here again we have the first two of the five musical experiences being used and even the third has been able to show itself. The children have listened to records, have responded to them rhythmically and have experienced spontaneous singing. This, for the un-prepared teacher, is certainly an excellent beginning. But for many teachers, the lack of understanding often goes with lack of interest and confidence within themselves. The teacher has not had a chance to learn the basic fundamentals of music and therefore, not understanding it, turns her interests elsewhere. She may listen to the radio some and may even have some selections which she says are her favorites, having become so because she has heard them often enough that the melodies have become familiar to her and appeal to her. Outside of this amount of listening, music has played a very small part in her life. It's language has not been opened to her and its symbols and signs remain a
mystery to her. If this same teacher could be given a thorough and working knowledge of the fundamentals of music, if she could have experienced this knowledge at a young age and used it to further her own musical development, how much better equipped she would be to carry on her own music program.

Many people have asked why it is necessary to teach children the fundamentals of music. Why should young children be compelled to drill day in and day out on notes and rhythm? In looking back on their own experiences, more than one person has stated that they felt that the necessity for learning skills with no apparent reason for doing so, killed their interest in music and gave them a feeling that there was no need for skills in music. As stated in the first chapter, the purpose of this study is to help determine the needs for in-service training among elementary teachers in the fundamentals of music. However, so many of the teachers who participated in this study asked this question, that it would seem worth while to discuss it at this point.

First of all, there is no need for the skills in music to become a patterned drill. The skills should be an integrated part of the music program and thought of as a process of enrichment in the children's musical experiences. These skills and techniques should evolve from creative learning and not be set aside as a part of music which must have its ten or fifteen minutes each day of special drill. There has been altogether too much pigeon-holing of music. With too
many teachers breaking their week up into five days of different musical experiences. Yet, this very method is still being used not only by grade teachers, but by many supervisors who outline the program of work for the teachers. One day is devoted to listening each week, another two or three days are spent in rote singing and note reading, with definite songs which must be learned entirely by rote or entirely by note. Another day will be rhythms and no matter what is the mood of the class, rhythms it will be. Perhaps this is exaggerating the point to some extent, yet, on the whole, it is quite a true picture of a situation which prevails in many classrooms. When the skills and techniques can become a part of the child's creative learning, when they are injected with the thought of enriching the child's musical experience and widening his musical horizons, the child will become conscious of his own need for further techniques in order to be able to explore beyond that horizon. With the right attitudes of both teacher and pupil, such things as note reading and sight reading become a functional part of the child's growth. The child soon accepts these techniques as a matter of course and does not think of them as a problem. It is up to the teacher to make the learning situation such that it will challenge the student to go further, rather than turning him away from music.

Secondly, with the broadened scope of the music program in today's schools, it has been too easy for many teachers
to develop the concept that skills are no longer important. It is true, that in the primary grades, it is easy to keep children interested and to have a full program of music without the skills. However, as the children reach the sixth, seventh and eighth grades, many problems arise, particularly that of the changing voice. It becomes necessary to engage in part-singing in order to have music in which it will be possible for all to participate. If this music has to be done entirely by rote, it becomes a long and tedious process and usually ends in the music period being generally detested by all concerned. Children equipped with a thorough background of the skills in music have an opportunity to experience a full and varied program of music not only in school, but in future years.

The whole focal point is brought back to the classroom teacher again. If the teacher lacks an understanding of the fundamentals of music, she will be the first block to slow the process of musical development. It is not only that we wish the children to understand the fundamentals and feel, therefore, that the teacher must know them in order to teach them to the children, but, with a thorough knowledge of the fundamentals, the teacher stands a much better chance of being able to bring music to her children through all of the five types of experiences previously mentioned. It is to be able to bring a greatly enriched program of music to the children, that we wish to have the classroom teacher well prepared
herself.

"A lack of skills in the fundamentals of music retards the progress of a stimulating music program." 1

What should be done, then, to improve the teacher-training program. The Music Educators National Conference 2 has suggested several possibilities. First of all, to carry the matter into the teacher-training institutions, the prospective teachers should not only receive courses in the fundamentals of music, but they should also be given opportunities to apply these courses in practice teaching situations. For the teacher, more adequate in-service training is needed. There are many teachers in our schools today who have little if no background in the fundamentals of music. "It is important that the classroom teacher be made to feel secure in any musical activity." 3

Among the activities suggested by the Music Educators National Conference as important to in-service training workshops are the following:

1. Survey of materials
2. Conducting
3. Playing chord instruments to familiar songs.
4. Playing melody instruments

3. Ibid., p. 7
5. Proper use of the singing voice and steps in music reading at different grade levels.

The last point mentioned is the one of greatest concern in this study, especially that of music reading. The necessity of understanding the fundamentals of music does not only apply to the fifth point, but also to all but the first. Conducting, playing chordal instruments and playing melody instruments would all involve an understanding of musical notation and rhythm.

For the rural teacher, who often has very little supervision and also often lacks equipment, inadequate preparation creates an even greater problem. In-service training as suggested by the Music Educators National Conference\(^1\) includes the following:

1. Ability to sing
2. A working knowledge of the elementary theory of music.
3. An ability to read such music as the literature of the elementary grades requires.
4. An appreciation of music which includes knowledge of such standard compositions of great composers as would be used in connection with listening activities in the elementary school.
5. A thorough understanding of the psychological proce-

\(^1\) Morgan, Hazel N., Op. cit., p. 49
dures relative to music teaching in the elementary grades.

6. Familiarity and ability to sing a repertoire of community songs.

7. A knowledge of the piano.

8. An ability to teach rhythm games and folk dances.

This looks like an enormous amount to ask of any elementary teacher, but it would seem that a basic knowledge of elementary theory, or, as referred to in this study, the fundamentals of music, would lay the groundwork for such a program.

The most essential job that we as supervisors can do, is to help the elementary teacher break down that feeling of inadequacy. In-service training, particularly training in the understanding and use of the fundamentals of music, should provide this help.
CHAPTER III

PLAN AND PROCEEDURE

Description of Test and Questionnaire

In order to determine how extensive the knowledge of the fundamentals of music of elementary school level is among the elementary teachers, a test of forty items, covering all technical aspects of the elementary music program, was constructed. The test is aimed to cover the fundamentals from kindergarten through the sixth grade, that is, the fundamentals the teacher must know in order to teach, with confidence and accuracy, the skills of the music program, as well as the functional use of them in the overall music program.

The contents of the test is based upon the following:

1. A study of the material included in the Percy Graham Outline of Lesson Plans for the first through the sixth grades.

2. A study of all the problems involved in the reading songs of four school music song series.

3. An outline of theory for the elementary teacher, as given in Keys to Teaching Elementary School Music, by Carl O. Thompson and Harriet Nordholm. ¹

¹ Thompson, Carl O. and Harriet Nordholm, Keys to Teaching Elementary School Music, Minneapolis, Minn, Paul A Schmitt Music Co., 1949


The test is divided into the following areas:

1. Notation
   a. Letters
   b. Treble Clef
   c. Bar Line
   d. Leger Lines
   e. Measure
   f. Notes
   g. Rests
   h. Syllables

2. Rhythm
   a. Simple time
   b. Compound time
   c. Time Signature

3. Chromatics
   a. Finding "do" with sharps and flats

5. Scales

6. Key Signatures

¹ Music in the Elementary School, Music Educations National Conference, Chicago Ill., 1951
² Morgan, Hazel N., Music Education Source Book, Music Educators National Conference, Chicago, Ill., 1947
7. Intervals
   a. Octave
   b. Major triad

8. Chord

One or two items were constructed in most of the above areas and in some cases, where the writer felt an area was particularly important, more than two items were constructed. As much as possible, the items were so written that if the testee was not immediately able to recall the correct answer, she should be able to make use of the same logical thought processes which she in turn is using in teaching or using these fundamentals.

Preceding the test is a one page questionnaire to gather information pertinent to the teacher and her test results. It is felt, for instance, that a teacher with several years of instrumental study should have a decided advantage over the teacher with little or no formal music training. Also, the teacher who has been teaching on the lower grade levels and has no formal music training would not fair so well on the items pertaining to the upper grade level. In order to gather data about the teacher's musical background, the questionnaire gives opportunity to list any possible musical experiences the teacher may have had which might influence her results on the test. A copy of the test and questionnaire will be found in the appendix.
Administering Test and Questionnaire

Upon completion of the test, it was administered to a group of forty-three teachers picked at random from classes at Boston University School of Education for an item analysis. These were all elementary teachers in-service at the time with one or more years of teaching experience. Each of these teachers was also asked to fill out the questionnaires. The tests, with their corresponding questionnaires, were then divided into two groups; those who had an obviously strong music background which included at least three or more years of formal music training and several courses in music and those with little or no background in music. A careful check was made of each item and as a result, one item was changed. This particular item was missed by a larger percentage of the group with noticeable formal music background than by the group with little background.

The final test was administered to 181 elementary teachers. 137 of these teachers were from Winchester, Shrewsbury, Mansfield and Framingham, Mass. The tests were taken to these communities and teachers meetings were held at which time the test and its purpose was explained to the teachers. The teachers were informed that no names were needed on the test and that the tests would not be used in any way that would affect their professional standing. The importance of following the directions on the test and not
using any assistance was also explained and the teachers were allowed to take the tests home with the understanding that they should be returned to their school offices within a week. In some schools it was impossible to call the teachers together for a special meeting and in these schools, the writer saw each teacher individually and explained the test. Willingness to assist in the study and to take the test was found to be very high. Most teachers showed a genuine concern that music educators are interested in helping them to better their musical standing in the elementary schools and to assist them to grow musically.

Within a week's time the writer returned to the schools and collected the tests and was able, in this manner, to obtain a 94% return.

In checking the results of this group, it was found that a rather unusually high percentage of the teachers had more than three years formal training on an instrument. Of the 137 teachers in this group, 65 had had more than three years formal music training and it was also noted that there was a tendency toward a variety of music courses and other music experiences in this group than there was with the group with no formal music background. This led the writer to believe that a more heterogeneous group of teachers should take the test to see if there would be any marked difference in the background of the teachers and also in the results of
the test as compared to the groups chosen from the four communities. As a result, another group of teachers was chosen at random from classes at Boston University School of Education, their only requirement being that they be elementary teachers in service and that they be teachers who were having to teach their own music program under supervision. The test was given to this group under supervision and a time limit of one-half hour was set, this being the average amount of time spent on the test by the original experimental group. For the purposes of this study this group shall be referred to as the controlled group and the larger group as the uncontrolled group.
CHAPTER IV

ANALYSIS OF RESULTS OF TEST AND QUESTIONNAIRE

As mentioned in the previous chapter, the test for teacher accuracy in the fundamentals of music was given to two groups of teachers under different circumstances. In an analysis of findings, it was found that results yielded by these two groups were quite different. Throughout this chapter, the differences in the two groups will be stated and discussed. As the controlled group was somewhat smaller than the uncontrolled group, the reader may feel that these differences, with the controlled group in particular, are not of too much importance, but they do seem extensive enough to the writer to be of some significance.

1. Comparison of Overall Scores

Tables I and II on the following page, show the frequency distribution and the arithmetic mean of the two groups. It is significant to note how much higher the mean is with the uncontrolled group, being 34.98, as compared to the controlled group of 25.56. This may be attributed to the following:

a. In the uncontrolled group, 60 of the 137 teachers had had formal music training of three or more years as compared to the controlled group which showed only 15 of these 44 teachers with three or more years of formal music.
### TABLE I

**Frequency distribution of uncontrolled group scores**

<table>
<thead>
<tr>
<th>Integral Limits</th>
<th>Frequency</th>
<th>Deviation</th>
<th>fd</th>
</tr>
</thead>
<tbody>
<tr>
<td>38-40</td>
<td>44</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td>35-37</td>
<td>29</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>32-34</td>
<td>22</td>
<td>-1</td>
<td>-22</td>
</tr>
<tr>
<td>29-31</td>
<td>12</td>
<td>-2</td>
<td>-24</td>
</tr>
<tr>
<td>26-28</td>
<td>10</td>
<td>-3</td>
<td>-30</td>
</tr>
<tr>
<td>23-25</td>
<td>3</td>
<td>-4</td>
<td>-12</td>
</tr>
<tr>
<td>20-22</td>
<td>7</td>
<td>-5</td>
<td>-35</td>
</tr>
<tr>
<td>17-19</td>
<td>5</td>
<td>-6</td>
<td>-30</td>
</tr>
<tr>
<td>14-16</td>
<td>3</td>
<td>-7</td>
<td>-21</td>
</tr>
<tr>
<td>11-13</td>
<td>1</td>
<td>-8</td>
<td>-8</td>
</tr>
<tr>
<td>8-10</td>
<td>1</td>
<td>-9</td>
<td>-9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>137</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Arithmetic Mean 34.98**

### TABLE II

**Frequency distribution of controlled group scores**

<table>
<thead>
<tr>
<th>Integral Limits</th>
<th>Frequency</th>
<th>Deviation</th>
<th>fd</th>
</tr>
</thead>
<tbody>
<tr>
<td>38-31</td>
<td>4</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>35-37</td>
<td>6</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>32-34</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>29-31</td>
<td>4</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>26-28</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>23-25</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>20-22</td>
<td>6</td>
<td>-1</td>
<td>-6</td>
</tr>
<tr>
<td>17-19</td>
<td>5</td>
<td>-2</td>
<td>-10</td>
</tr>
<tr>
<td>14-16</td>
<td>1</td>
<td>-3</td>
<td>-3</td>
</tr>
<tr>
<td>11-13</td>
<td>4</td>
<td>-4</td>
<td>-16</td>
</tr>
<tr>
<td>8-10</td>
<td>1</td>
<td>-5</td>
<td>-5</td>
</tr>
<tr>
<td>5-7</td>
<td>1</td>
<td>-6</td>
<td>-6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Arithmetic Mean 25.56**
b. In the uncontrolled group, 34 of the 71 teachers with no formal music training had taken at least two courses in music, 32 of whom had had a course in theory or fundamentals of music. Only 8 of the controlled group of 15 without formal music training, showed 2 or more courses and only 3 of these had had courses in theory or fundamentals of music, the rest being for the most part, courses in appreciation with only 3 with courses in methods of teaching elementary music.

c. As the uncontrolled group was allowed to take the test on their own time, it would seem that, being able to take their time to figure out the items, they were able to rank much higher than the group which was timed. The results of the controlled group, in this case, are more important as they were having to recall the subject matter under much the same circumstances as they would in the classroom. For her teaching to be most successful, the teacher needs to have her subject matter at her fingertips and not have to grope for it in such a way as to impair the progress of the class or lose the interest of the group.

2. **Comparison of Formal Music Training With Scores**

   It has been asked by numerous teachers if the study of a musical instrument would aid in their general understanding and functional use of the fundamentals of music. Table III and IV have been prepared, for each group, to show the
average scores of teachers with no formal music background or a varying number of years of formal music training.

TABLE III

Formal Music Training As Compared to Scores (Controlled)

<table>
<thead>
<tr>
<th>No. Yrs. Formal Music</th>
<th>No. of Teachers</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>None or 1-2</td>
<td>29</td>
<td>22.17</td>
</tr>
<tr>
<td>3 - 4</td>
<td>9</td>
<td>31.44</td>
</tr>
<tr>
<td>5 - 6</td>
<td>4</td>
<td>31.00</td>
</tr>
<tr>
<td>7 - 8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9 - 10</td>
<td>2</td>
<td>33.33</td>
</tr>
</tbody>
</table>

TABLE IV

Formal Music Training As Compared to Scores (Uncontrolled)

<table>
<thead>
<tr>
<th>No. Yrs. Formal Music</th>
<th>No. of Teachers</th>
<th>Average Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>None or 1-2</td>
<td>77</td>
<td>31.08</td>
</tr>
<tr>
<td>3 - 4</td>
<td>19</td>
<td>33.26</td>
</tr>
<tr>
<td>5 - 6</td>
<td>21</td>
<td>33.96</td>
</tr>
<tr>
<td>7 - 8</td>
<td>10</td>
<td>35.40</td>
</tr>
<tr>
<td>9 - 10</td>
<td>7</td>
<td>38.14</td>
</tr>
<tr>
<td>11 - more</td>
<td>3</td>
<td>39.67</td>
</tr>
</tbody>
</table>

With the uncontrolled group scores, there is not a significant
difference between teachers with no formal background and those with three or more years. The trend, with this group, generally seems to be an improvement of scores as the number of years of training increases. It is, however, significant to note, with the controlled group, that there is a difference of approximately 9 points between the groups with no formal training and the group with three to four years. Here, again, the fact that this was a timed group, must be taken into consideration. Although the controlled group totalled only 44 cases, the writer feels that the trends are significant enough to weigh them against the uncontrolled group where there was considerable opportunity for halo effect.

The general conclusion, here, would be that, although one or two years' training did probably help some, there is not a significant difference between those with absolutely no music training as compared with those with one or two years, as there is with those who have had at least three years' training. Many teachers indicated on their questionnaires that their one or two years' training was on piano and that it was in their childhood. The idea seemed to be that they felt that what little piano they had acquired had been forgotten and probably would have little effect upon their scores. The trend in scores with the controlled group would indicate that as much as three or more years of formal training had helped the teachers in retaining and understanding the fundamentals more thoroughly.
3. A Comparison of the Number of Years of Teaching Experience, With Those Teachers With No Formal Music Training, With Their Respective Scores.

In tabulating the results of the tests it was noted that there were a significant number of teachers, in both groups, with no formal music training and little if no background in music courses in college who had received high scores. Tables V and VI show the relation of the scores and number and type of music courses with the number of years of teaching experience.

**TABLE V**

Relation of Scores with Number of Years of Teaching Experience and Courses Taken, where there is no Formal Music Background. (Uncontrolled Group)

<table>
<thead>
<tr>
<th>No. Yrs. Teaching</th>
<th>No. of Teachers</th>
<th>Teaching Methods</th>
<th>Appreciation</th>
<th>Theory or Fundamentals</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 or more</td>
<td>7</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>35.14</td>
</tr>
<tr>
<td>20-29</td>
<td>11</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>34.39</td>
</tr>
<tr>
<td>15-19</td>
<td>14</td>
<td>11</td>
<td>6</td>
<td>2</td>
<td>30.22</td>
</tr>
<tr>
<td>10-14</td>
<td>9</td>
<td>4</td>
<td>4</td>
<td>-</td>
<td>29.67</td>
</tr>
<tr>
<td>5-9</td>
<td>13</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>31.23</td>
</tr>
<tr>
<td>1-4</td>
<td>20</td>
<td>9</td>
<td>16</td>
<td>9</td>
<td>28.91</td>
</tr>
</tbody>
</table>
TABLE VI

Relation of Scores with Number of Years of Teaching Experience and Courses Taken, where there is no Formal Music Background. (Controlled Group)

<table>
<thead>
<tr>
<th>No. Yrs. Teaching</th>
<th>No. of Teachers</th>
<th>Teaching Methods</th>
<th>Appreciation</th>
<th>Theory or Fundamentals</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>30.00</td>
</tr>
<tr>
<td>10-19</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>-</td>
<td>22.50</td>
</tr>
<tr>
<td>1-9</td>
<td>20</td>
<td>6</td>
<td>2</td>
<td>-</td>
<td>21.48</td>
</tr>
</tbody>
</table>

The tables show the three major areas in which courses were taken, those being Teaching Methods, Appreciation and Theory or Fundamentals. In both groups the trend seems to be generally the same in that the teachers with many years of experience have, despite lack of courses, acquired a workable knowledge of the fundamentals of music and as the number of years of experience decreases, the scores become somewhat lower. These trends are more noticeable with the uncontrolled group where there are a larger number of cases to work with. It should be noticed that in table V there is a slightly higher score in the area of from 5 through 9 years' teaching experience and that after that the score decreases again. It would seem that the increase in the amount of courses and the fact that the teacher has had several years to apply them might account for this increase, whereas, the teacher with less experience, although having as many if not more courses,
has not as yet had enough practical application of the material.

4. **Areas of Weaknesses in the Fundamentals of Music**

A study of tables VII and VIII will give the reader an idea of the areas in the fundamentals of music which seem to be weakest among the teachers tested. The tables are arranged in the same order as the outline of the areas of the test as given in Chapter III. In Table VII, the most significant area to note is that of intervals, where two of the items were each missed 67 times. As neither of these items are used to any extent in the public school music program and are more important perhaps to an instrumentalist, this would not seem too significant. This also appears to be the weakest area in the controlled group as indicated by Table VIII. Outside of this particular area, there is no significant difference in the areas to note. The weaknesses in the various areas seem to be pretty well scattered throughout the test. However, in an examination of individual tests, it was found that the teachers were usually consistent in the areas which they missed. A typical example of this is the relation of items 12 and 14. Teachers who consistently missed item twelve, which involved the mathematical understanding of notes and rests, also missed item fourteen, which involved the understanding of rests. This mistake was caused mainly by the confusion of the quarter and eighth rests. Item twelve, although basically a question on rhythm and
<table>
<thead>
<tr>
<th>Test Areas</th>
<th>Item No.</th>
<th>Frequency of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Notation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Letters</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>b. Letters</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>c. Treble Clef</td>
<td>1</td>
<td>44</td>
</tr>
<tr>
<td>d. Leger Lines</td>
<td>2</td>
<td>33</td>
</tr>
<tr>
<td>e. Bar Line</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>f. Measure</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>g. Notes</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>h. Rests</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>i. Syllables</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td><strong>2. Rhythm</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Simple time</td>
<td>12</td>
<td>28</td>
</tr>
<tr>
<td>b. Compound time</td>
<td>22</td>
<td>48</td>
</tr>
<tr>
<td>c. Time Signature</td>
<td>39</td>
<td>16</td>
</tr>
<tr>
<td><strong>3. Chromatics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromatics</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>Chromatics</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>Chromatics</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td>Chromatics</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td><strong>4. Locating do with #'s &amp; b's</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locating do with #'s &amp; b's</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Locating do with #'s &amp; b's</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Locating do with #'s &amp; b's</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td><strong>5. Scales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scales</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Scales</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Scales</td>
<td>38</td>
<td>48</td>
</tr>
<tr>
<td><strong>6. Key Signatures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Signatures</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Key Signatures</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Key Signatures</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td><strong>7. Intervals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intervals</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Intervals</td>
<td>30</td>
<td>67</td>
</tr>
<tr>
<td>Intervals</td>
<td>33</td>
<td>67</td>
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<td><strong>8. Chords</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chords</td>
<td>34</td>
<td>45</td>
</tr>
</tbody>
</table>
## TABLE VIII

**Frequency of Error Per Item (Controlled)**

<table>
<thead>
<tr>
<th>Test Areas</th>
<th>Item No.</th>
<th>Frequency of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Letters</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>b. Letters</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>c. Treble Clef</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>d. Leger Lines</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>e. Bar Line</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. Measure</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>g. Notes</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Notes</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Notes</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>Notes</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>h. Rests</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Rests</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>i. Syllables</td>
<td>32</td>
<td>14</td>
</tr>
<tr>
<td>2. Rhythm</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>a. Simple time</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Simple time</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>Simple time</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td>Simple time</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>b. Compound time</td>
<td>22</td>
<td>19</td>
</tr>
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<td>21</td>
</tr>
<tr>
<td>Compound time</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td>c. Time Signature</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>3. Chromatics</td>
<td>15</td>
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<td>Chromatics</td>
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<tr>
<td>Chromatics</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Chromatics</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>4. Locating do with #'s &amp; b's</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Locating do with #'s &amp; b's</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Locating do with #'s &amp; b's</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>5. Scales</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Scales</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Scales</td>
<td>38</td>
<td>24</td>
</tr>
<tr>
<td>6. Key Signatures</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Key Signatures</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>Key Signatures</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>7. Intervals</td>
<td>37</td>
<td>10</td>
</tr>
<tr>
<td>Intervals</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Intervals</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>8. Chords</td>
<td>34</td>
<td>16</td>
</tr>
</tbody>
</table>
time signatures, did also depend on knowing the difference between a quarter and an eighthrest. Item fourteen was basically a question on the knowledge of rests. Another area in which the mistakes were consistent was that of compound time. In the uncontrolled group, item twenty-two was missed 48 times and item thirty-six was missed 33 times. In checking these two items it was discovered that 32 teachers missed both items consistently. In the controlled group, item twenty-two was missed 19 times and item thirty-six was missed 20 times. Eighteen teachers missed these two items consistently in this group. One other item to note is item number one which was missed 44 times in the uncontrolled group and 23 times in the controlled group. This item has raised quite a few questions in discussions of the test and the writer feels that the fact that it had a rather high amount of error is not too significant as the term, treble clef, is not used too much in the elementary school teaching. It is felt that limitations should be set on this item as it was a term which was not used generally throughout the schools. The writer had been using it in preference to the term "G clef" in her own teaching situation as there was such a high percentage of students studying instruments, especially the piano, that it was found better to use the term "treble clef" and have less confusion with the students than to have them trying to keep two different terms straight in their minds. In a
check of all the tests from Winchester, where the writer had used the term in her teaching, it was found that those teachers had 89.26% accuracy on this item. On the whole, it can be said that the teachers were consistent in either knowing an area quite well or missing it entirely.

5. Types of Courses Studied by the Teachers

In reference again, to table V, it will be noted that very few teachers, until the more recent graduates, received any courses in the theory or fundamentals of music. The majority of courses studied were in methods of teaching elementary music with just a few less in appreciation. It might be interesting to note here, that, of the 137 teachers in the uncontrolled group, 105 were graduates of teacher's colleges and 28 were graduates of other colleges and universities. Of those who were graduates of regular colleges and universities, only 5 had a course in methods of teaching music, 4 had courses in theory, 15 had courses in appreciation, and 12 had no courses whatever. It would seem that if many graduates of regular universities or colleges should go into the teaching field that here was a great need for in-service training. Many of these people have had appreciation of music and would probably do a fair amount of listening in their class work, but how much more could be done with a basic knowledge of and functional use of the fundamentals of music.
With those teachers who were graduates of teacher's colleges, courses in methods of teaching elementary music and appreciation predominate with courses in theory having been added for more recent graduates. Those teachers who had no background, were mainly teachers who had graduated more than ten years ago, at a time when fewer courses were given and when they were not as often required.

As has been previously noted, the teachers who are more recent graduates and have had more courses in their background are not necessarily the ones with the highest scores. Perhaps the difficulty lies in the fact that there is not enough practical application of the material being studied.

6. Comparison of Teachers' Scores at Different Grade Levels

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kdgtn</td>
<td>25.22</td>
</tr>
<tr>
<td>First</td>
<td>32.88</td>
</tr>
<tr>
<td>Second</td>
<td>34.08</td>
</tr>
<tr>
<td>Third</td>
<td>33.45</td>
</tr>
<tr>
<td>Fourth</td>
<td>33.68</td>
</tr>
<tr>
<td>Fifth</td>
<td>29.66</td>
</tr>
<tr>
<td>Sixth</td>
<td>34.36</td>
</tr>
</tbody>
</table>
A study of Table IX shows that, except for the kindergarten level, there is no significant difference in the scores of teachers of different grade levels. A careful study of the scores showed that there was about the same distribution of scores on all grade levels, no particular level showing much greater deficiency than another. However, it is important to note that there is quite a difference between the kindergarten and the other grade levels. This seems to be due to the fact that the kindergarten teachers do not teach any actual fundamentals of music to their pupils and therefore do not use them enough to retain them, and, from a survey of the tests, it was noted that the kindergarten teacher was the least prepared musically of any other grade level, having very few courses in her background. Only 2 out of 11 had any instrumental training, one being four years of piano and the other six.

The controlled group was not included in this part of the study as there were no kindergarten teachers in this group and also as the group was quite unbalanced, there being only 2 second grade and 4 third grade teachers as compared to 14 sixth and 13 fifth grade teachers.

7. In a study of the different grade levels it was also noted that there was no particular difference as to the types of items known on different levels. It had been assumed that teachers on the lower grade levels, who had been teaching for some time in those grades, might not be as familiar
with the material pertaining to the upper grade levels, such as compound time and chromatics. However, there was no strong evidence that this was so. The distribution of knowledge in different areas of the test was fairly equal among the different grade levels.
CHAPTER V
CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Conclusions
The results of the experiment indicate quite definitely that there is a need for in-service training for elementary school teachers in the fundamentals of music. By this, the writer does not wish to infer that the majority of teachers did poorly on the test. On the contrary, it was found that teachers, on the whole, fared better than it was originally assumed that they would. However, general indications show that, within the limitations of this study, the teachers do need some help. The general indication is that the more years of experience a teacher has, the better she is able to understand the fundamentals of music. But, what is happening to the music program while the teacher is gaining her experience? The writer feels that the teacher needs in-service training in the practical application of the theory and methods to which she has been exposed in the teacher training institutions. It would seem that experience on an instrument would give the teacher that practical application. Even work with songflutes, rhythm band instruments and any of the other instruments being introduced more and more into the classroom would help the teacher tremendously, besides giving her methods and techniques to use them in the classroom.
There is a definite indication from the results of this study, that teachers are receiving more training in music than ever before in our teacher training institutions and that many more are receiving instruction in elementary theory. Yet, from the results of the study there does not seem to be an improvement in their understanding of the fundamentals of music. Here again, it is felt by the writer, that, training in the functional use of these fundamentals is lacking. It is up to the supervisor to recognize the weaknesses and to aid the teacher in becoming proficient in the use of her newly acquired knowledge through workshops, meetings or even through individual help.

It will be remembered that in Chapter I, a discussion was made of an experiment in class piano for teachers. The results of this one experiment certainly proved, in that particular situation, the merits of instrumental study for the classroom teacher. This was particularly noticeable, in this study, among the teachers with formal music training. As the number of years of formal background increased, the average score became higher.

Although this study is more concerned with the teacher already in service, it is suggested here that a possible aid in the teachers colleges would be to give teachers in training an opportunity for at least one year of instrumental study, preferably at the piano.
As to the limitations of this study, factual knowledge of the fundamentals of music is not necessarily an indication of performance ability. As this study is only concerned with a written test, there is no way of telling how well these teachers are able to use the knowledge they possess. The most that can be said is that the better the fundamentals are known the better able the teacher should be to apply them.

It is also felt that if the controlled group could have been much larger, that the indications brought out by this group would be much more significant. An observation of the tables of frequency distribution for the two groups shows a much more normal distribution for the controlled group than for the uncontrolled and from this it is felt that the results of this group, although a much smaller group, are as significant if not more so than the uncontrolled group.

Suggestions for Further Research

The following are the writer's suggestions for further research:

1. That a larger group of teachers under the controlled situation be used and that, if possible, these people be a sampling of a larger area as those used in the study were nearly all from New England and represented, for the most part, New England colleges.

2. That a wider testing area be covered in which the
teachers would be able to show the limits of their knowledge in all areas of music theory and appreciation. Some of the standardized tests could be employed for this purpose.

3. That also, in revising the test, some areas be excluded which the writer now feels are not essential to the elementary music program, this being mainly the items on finding do with sharps and flats. The writer has found that children develop a sense of key feeling without the time spent in drill on locating do.

4. That a test of teacher performance be given in which the teacher is able to show her proficiency in application of the fundamentals of music. This test should include the teacher's ability to handle her voice, tone production, sight reading, rhythmic abilities and pitch recognition.
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TEST FOR TEACHER ACCURACY IN THE FUNDAMENTALS
OF MUSIC
Elementary Level

Music Background of Teachers
1. Graduate of or Certificate from __________________________
   __________________________ No. of yrs. ______________________

2. Year of Graduation: 19____

3. Number of years of teaching experience: __________

4. Present grade level you are teaching: __________

5. Number of years at present grade level: __________

6. List music courses studied during or since college:
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

7. Member of Musical Organization in College:
   Glee Club _____ Chorus _____ Orchestra _____ Band _____
   Church choir _____ Others: _____________________________

8. Are you now participating in a musical organization? _____
   Name ________________________________

9. Do you play any instrument(s)? _______
   Instrument __________________________
   Yrs. Studied _________________________
   __________________________
   __________________________
   __________________________

10. Musical Experiences other than those mentioned above:
    ________________________________________________
In order to maintain the validity of the test, we request that you please refrain from using any assistance of any kind in its completion.

Directions: Read the question carefully and choose the correct or the best answer and place the letter in the brackets to the right.

1. The clef used in vocal music for the elementary school level is the:

a. bass clef
b. soprano clef
c. treble clef
d. alto clef

2. Notes above and below the staff are written on:

a. leger lines
b. measures
c. staff lines
d. bar lines

3. The lines and spaces are named with the first:

a. 5 letters of the alphabet
b. 7 letters of the alphabet
c. 8 letters of the alphabet
d. 6 letters of the alphabet

4. The sign used to divide music into measures is called a:

a. double bar
b. leger line
c. repeat sign
d. bar line

5. A major scale contains:

a. 4 whole steps and 3 half steps
b. 2 whole steps and 5 half steps
c. 5 whole steps and 2 half steps
d. 6 whole steps and 1 half step

6. Which of the following are quarter notes?

a. 

b. 

c. 

d. 

1
7. The syllable one step above fa is:
   a. la   b. mi   c. do   d. sol

8. When one time signature is used throughout a tune, each measure has:
   a. an equal amount of notes
   b. notes of equal value
   c. an equal amount of beats
   d. an equal amount of notes and rests

9. In the example below, the syllable do is located:

   a. in the second space
   b. on the fourth line
   c. on the first line
   d. in the fourth space

10. A whole step is the distance from:
    a. mi to fa
    b. si to la
    c. do to ti
    d. fa to sol

11. Which of the following are sixteenth notes?

12. Which of the following is correct according to the time signature?

13. When there are no sharps and flats, the syllable do is located:
    a. on the third line
    b. in the second space
    c. in the third space
    d. on the fourth line
14. Which of the following is a quarter rest?

A. ▼ ▼
B. ▼ ▼
C. ▼ ▼
D. ▼ ▼

15. When there are no sharps or flats in the key signature, the sign used to represent a chromatic tone one-half step below the scale tone is:

a. ♭
b. ♭
c. ♭
d. ♭

16. In the example below, the syllable do is located:

a. in the first added space above the staff
b. on the fourth line
c. in the second space
d. in the third space

17. Which of the following are half notes?

A. d. c. b.

18. The correct syllable names for the example below are:

a. do, ra, do, ra, do, re, mi
b. la, te, la, te, la, ti, do
c. sol, le, sol, le, sol, la, ti
d. la, ti, la, ti, la, te, do

19. The key represented by the key signature in the example below is:

a. A major
b. F major
c. B major
d. C major

20. Four sixteenth notes have the same time value as:

a. one half note
b. two quarter notes
c. two eighth notes
d. one dotted quarter note
21. Which of the following is a whole rest?
   a. 
   b. 
   c. 
   d.  

22. Which of the following is a compound time signature?
   a.  
   b.  
   c.  
   d.  

23. Which of the following is the correct key signature for G major?
   a.  
   b.  
   c.  
   d.  

24. In four-four time, the value of the eighth note is:
   a. one beat
   b. one-half beat
   c. three beats
   d. a beat and a half

25. Which measure below is in three-four time?
   a.  
   b.  
   c.  
   d.  

26. When the key signature has no sharps or flats, the sign used to represent a chromatic tone one-half step above the scale tone is:
   a.  
   b.  
   c.  
   d.  

27. The key represented by the key signature below is:
   a. D major
   b. A major
   c. E major
   d. D# major
28. A tune in two-four time has how many beats in a measure?
   a. two  
   b. four  
   c. three  
   d. six

29. The time signature for the example below is:
   \[\frac{2}{4}\]
   a. 4  
   b. 4  
   c. 8  
   d. 8

30. The distance from C to E is a:
   a. major third  
   b. major second  
   c. minor third  
   d. major fourth

31. The time signature for the example below is:
   \[\frac{4}{3}\]
   a. 4  
   b. 6  
   c. 3  
   d. 2

32. The correct syllable names for the example below are:
   a. sol, fa, sol, la, sol, mi, do  
   b. do, ti, do, re, do, la, fa  
   c. mi, re, mi, fa, mi, do, sol  
   d. sol, fi, sol, la, sol, mi, do

33. The interval in the example below is called a:
   a. minor third  
   b. major second  
   c. major third  
   d. perfect fourth

34. A chord is:
   a. three notes played simultaneously  
   b. two or more notes played simultaneously  
   c. two or more notes played separately  
   d. four notes played simultaneously
35. On which staff are the lines correctly lettered?

a. 

b. 

c. 

d. 

36. Which measure is in nine-eight time?

a. 

b. 

c. 

d. 

37. The name of the interval in the example below is:

a. an octave
b. a major fifth
c. a major seventh
d. a minor sixth

38. When singing a minor scale with the syllables, the key note will be:

a. do  b. mi  c. la  d. sol

39. Which of the following is used to indicate the meter of a particular tune?

a. clef sign  b. key signature  c. bar line  d. time signature

40. Which of the following is used to remove the effect of a sharp or flat?

a. b  b. b  c. #  d. x