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THE ORFF-SCHULWERK AND TRADITIONAL MUSIC EDUCATION: A COMPARISON OF APPROACH

by

© CAROL BORAS

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled THE ORFF-SCHULWERK AND TRADITIONAL MUSIC EDUCATION: A COMPARISON OF APPROACH submitted by CAROL BORAS in partial fulfilment of the requirements for the degree of MASTER OF EDUCATION.

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Date: 10th June, 1988

ABSTRACT

This study was undertaken to evaluate and compare the benefits of an Orff-Shulwerk music program over a more traditional approach to music education in three areas: gross motor skill development, attitudinal enhancement and music skill acquisition. This was done by assessing student achievement in these three areas using the Test of Gross Motor Development (Ulrich, 1985), the M-P Pupil Attitude Scale (Copper Country Intermediate School District, 1973) and the Music Test (Glasgow & Hamreus, 1968). It was hoped that a comparison of the two approaches would lead to a greater understanding of the proposed benefits of Orff-Schulwerk. Further, it was expected that insights into what Orff-Schulwerk embodies might be gained through the collection of descriptive data as well as through interviewing children and teachers involved in the study.

The statistical results of the study indicated that no significant differences were found to exist between Orff-Schulwerk and a traditional music education approach. However, the qualitative data did not parallel these findings. It was revealed, for example, that the Orff students displayed a "quality" of movement that far surpassed the movement of the non-Orff students. "Quality" of movement, however, was not a component of the testing instrument. Secondly, the attitude test did not reflect the attitudinal differences which were apparent on a daily basis. Thirdly, while the Orff students did not achieve greater music skill acquisition from a statistical viewpoint, it became apparent that their attitude toward music and the development of music skills was more positive than that displayed by

the non-Orff students. While skill development is an important consideration, it may well be that attitude toward skill acquisition has more important and far reaching implications.

A spin-off effect of the Orff program was the reaffirmation of the integrative nature of the approach, thus lending credence to the thesis that Orff-Schulwenk may be considered as education through the arts. Further, results of interviews suggested that the creative process, which is fundamental to Orff-Schulwerk, has tremendous power in encouraging the growth of confidence and self-esteem.

Thus, while the study highlighted the areas of gross motor skill acquisition, attitude development and music skill development, the importance of attitude was the common element uniting motor development and music skill development. Orff-Schulwerk's raison d'être may well be in the area of attitudinal enhancement, notwithstanding any of the complexities which the term implies.

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Background to the Study

In a continuing effort to evaluate and develop improved musi education practices, it is necessary to review strategies that promot student learning behaviors. Most music educators would probably agre that skill and conceptual development will come about as a result o sequential learning experiences which actively involve the students i the making of music. To achieve this end, music educators have experimented with various pedagogical practices.

However, the teaching styles in use today have been influenced by a myriad of approaches that have evolved from tradition or from recent changes in societal and cultural philosophy. Jackson (1968) states: "the pathway of educational progress more closely resembles the flight of a butterfly than the flight of a bullet" (pp. 166-167). Music education has fared no better and has travelled "willy-nilly" (Nye, 1963, p. 64) along the same pathway that education is travelling at the moment (Boras & Fishburne, 1986). As there are no universally acceptable methods of approaching music education, some pedagogues hold fast to a tried and true "method" while others lay claim to eclecticism (Shehan, 1986). Van Ess (1961) suggested that regardless of practices or procedures, the music education profession has been grounded in the belief that music education makes a vital contribution to intellectual and aesthetic development and, therefore, plays an important role in the general education curriculum.

However, Van Ess (1961) also argues that despite this primary belief that music greatly contributes to a child's overall development, there appears to be an emerging dichotomy between basic music education philosophy and actual classroom procedures. Educators and philosophers have often decried the more orthodox educational approaches whereby learning is measured solely as successful factual memorization.

Aristotle (cited in Alrutz, et al., 1982) recognized the need for an educational approach which would "clearly use habit as its instrument before theory, and the education of the body must precede that of the mind" (p. 94). The notion that one must be an active participant in one's own learning is, clearly, not a novel invention. While modern educators are becoming increasingly cognizant of the necessity of holistic education that does not attempt to separate the training of the body from the training of the mind (Carlson, 1984), many writers would agree with Van Ess (1961), that the present state of music education is far from ideal (Carlson, 1984; Dewey, cited in Koob, 1984; Elrod & Burnett, 1981; English, 1980; Ensor, 1959; Glasgow & Hamreus, 1968; Monsour, Cohen & Lindell, 1966; Nye & Nye, 1977; Schneider, 1969; Wiener & Lidstone, 1969; Wilmouth, 1970; and Zinar, 1984).

The Present Situation

Walter (1958) believes that our teaching of small children exhibits serious shortcomings:

> It has been taken out of the play sphere, it is concerned with fingerings and reading clefs and counting beats, it is

altogether too conscious, to technical, too mechanical, in spite of our pre-occupation with intrinsic motivation and all the care we take to stimulate the child to "want to learn". (p. 16)

Regelski (1975) believes that the acquisition of performance skills is still considered to be an end in itself as well as serving as the sole means of teacher accountability. This product oriented philosophy has, according to Regelski, nurtured the notion that performance is perhaps the only legitimate means of experiencing the "felt life" (p. 166) of musical art.

Matthesius (1977) delivers a stinging criticism of present practices when he states that:

> To speak of "music education" in our elementary schools . . . means to use a big word for something which in many cases scarcely even exists. Too often the child remains physically passive and the whole situation has little to do with teaching the elements of music. (p. 203)

Banks (1982) maintains that too many students do not grow in their musical experiences, which are often simply attempts to process aural information. The students do not manipulate the many musical elements, nor do they experience working in the same manner in which the musician works. Very few children have the opportunity of practicing a skill in order to acquire the skill. Accordingly, many students become disinterested in what largely consists of "drab repetitive exercises in musical mechanics" (Glasgow & Hamreus, 1968, p. 4).

To approach the teaching of music purely from an arithmetical

viewpoint demonstrates not only ineffective teaching strategies but a complete lack of understanding of the learning process of children. However, Dewey (cited in Koob, 1984) states: "The belief that all genuine education comes about through experience does not mean that all experiences are truly educative" (p. 31).

In an effort to provide musically educative experiences, those in the profession have examined the various philosophies and practices of several prominent educators: Emile Jaques-Dalcroze, Carl Orff, Shinichi Zuzuki and Zoltan Kodaly. These philosophies have influenced many of the practices now occurring in the music classrooms of today.

According to Glasgow and Hamreus (1968), however, the Carl Orff approach is:

> . . . viewed by many music educators as having unique success in motivating elementary school students to participate in music activities. Children are said to learn more readily certain fundamental skills in singing and reading music through bodily response to rhythm and creative performance on simple percussion and mallet type melody instruments. (p. 1)

The impact of Orff's ideas on elementary music education has been considerable. Not only is the Orff approach rich in a variety of musical experiences which encourage self-initiated and discovery learning, the prevalence of the Orff instruments is testimony to its popularity (Shehan, 1986). The Orff approach provides a creative atmosphere for developing skill and understanding, and thus merits closer scrutiny.

Overview of Orff-Schulwerk

Carl Orff, a German musician and composer, was responsible for the development of what is known as Orff-Schulwerk or simply, Schulwerk. The Schulwerk, which translates literally as work for the school (Matthesius, 1977), provides the setting in which the child is guided through an ordered framework of activities, allowing development in all areas basic to musicianship: singing, listening, playing instruments, improvising and music literacy. The Schulwerk is an innovation in the music education field because it fosters the development of musical skills and abilities concurrently with the child's exploration of the many musical elements. Although the ideas on which the Schulwerk is based are certainly not new, Orff can be credited with organizing and giving shape to these ideas (Liess, 1955/1966; Matthesius, 1977).

A precise definition of Orff-Schulwerk is very difficult to formulate. Orff described his approach as an "idea" to integrate all aspects of the performing arts: music, movement, speech, and drama. Orff's description of his approach as a "wild flower" conveys the idea that the Schulwerk flourishes best within a natural setting (Shamrock, 1986).

The term "elemental" music is often used to describe Orff-Schulwerk. This is so because the material used in all areas is simple, basic, natural and immediate to the child's world of fantasy (Shamrock, 1986). Elemental music consists of a fusion of the arts. It is never music alone. Rather, it is the performing arts interwoven into a composite of musical expression. Active participation provides the basis for the development of musical learning within a cultural and

social setting (Matthesius, 1977).

It is through the synthesis of speech-rhythms, chants, songs and movement, that children discover and demonstrate musical concepts. With rhythm serving as the starting point, the ultimate aim of the Schulwerk is the fostering of creative musicianship as displayed through improvisatory ability (Shehan, 1986).

Orff (1963) believed that only active participation could provide the basis for a meaningful experience. Because the involvement of each student is stressed in the music-making process, the contribution of the Schulwerk to skill and conceptual development cannot be ignored. A variety of media is provided (speech, movement, song and instruments) and all musical elements are manipulated in order to provide for the development of conceptual understanding (Frazee, 1977, p. iv).

> Thus, in learning theory terms, it can be said that the response repertoire is learned before symbolic stimuli are introduced to elicit desired responses. This is in contrast to many techniques which introduce the symbolic stimuli first and then attempt to associate appropriate responses to the stimuli before children "know" the desired behaviors (Glasgow & Hamreus, 1968, pp. 4-5).

Much has already been written about the historical development of the Schulwerk as well as detailed analyses as to what the Schulwerk embodies. Although an historical review of this material is not forwarded here, references are provided in the bibliography.

Definition of Terms

For the purpose of clarification, the following definitions were established for use in this study:

Orff-Schulwerk: is a multi-sensory approach that seeks to integrate all aspects of the performing arts. The end result focuses not on performance but on active, creative musicianship (Shehan, 1986). As a result of a variety of sensory experiences, children are not forced to process strictly aural or strictly visual information. Rather, conceptual understandings and music skills are integrated with human movement and total human development as children sing, move, play instruments, improvise and create (Banks, 1982; McRae, 1982; Shamrock, 1986). For a glossary of Orff-Schulwerk terms as used in this study, see Appendix L.

Traditional Music Education: is "an organized discipline of more or less objective facts and information presented as vicarious experience in verbal form" (Regelski, 1975, p. 9). This approach is characterized by the introduction of symbolic stimuli, followed by an attempt to associate the "appropriate responses to the stimuli before children 'know' the desired behavior" (Glasgow & Hamreus, 1968, pp. 4-5).

Focus of the Study

Orff-Schulwerk is an approach to music education that is motorically oriented, activity centered and provides a background for the development of creativity. In fact, all three elements are indivisable components of the Schulwerk experience. In this study,

these three components were considered essential to the child's development in three main areas: motor skills, music skills and attitude development.

Many researchers seem to suggest that by incorporating movement activities into the music classroom, music learning gains may be enhanced. Proponents of Orff-Schulwerk accept the idea that children come to us as whole individuals who have used movement since birth to measure growth and development. According to Lunz (1982), the desire to explore, as well as the desire to be independent, is what motivates a child to move. The importance of movement within Orff-Schulwerk is readily apparent:

> Music and movement are inseparable elements in music education as envisioned by Carl Orff. The body is an instrument capable of producing sound and moving with sound. The mover and the musician can be one and the same. (Lunz, 1977, p. 207)

The researcher speculated that since movement is such a crucial component of Orff-Schulwerk and since movement experiences may ultimately affect the development of motor skills, the measuring of gross motor skills acquisition after a period of Orff training would merit closer scrutiny. Thus, the researcher hypothesized that students experiencing Orff training would show greater gross motor skill acquisition than those who did not receive Orff training.

Secondly, many researchers support the premise that movement experiences may benefit the development of a positive attitude and self-concept. As Carlson (1984) stated:

> If indeed there is this "positive" feeling about the self and

about music after participating in movement related activities, how significantly does this feeling affect the child's view of music in general, as compared to a child who is not exposed to movement as an integral part of his music program? (p. 11)

Carlson (1984) further believes that if a child's body can become the instrument through which music is learned, then deeper aesthetic appreciation of the art of music will result. It is the movement experience rather than factual recall which allows the child to experience the language of music.

Orff-Schulwerk requires that all students participate all of the time. Each child is allowed to progress at his own level. Therefore, students are constantly developing their skills and experiencing success. Researchers have examined the effect of feelings of success, positive attitude and positive self-concept on musical learning achievement (Carlson, 198[illegible] Siemens, 1969). The idea that each child can experience success serves as a basic tenet of Orff-Schulwerk philosophy. The researcher hypothesized that positive attitudinal development would occur as a result of students experiencing Orff-Schulwerk training. Moreover, since the Schulwerk focuses on the development of creativity, the researcher felt that the power of the creative process may be effective in attitudinal enhancement.

The study also investigated the possibility that a focus on bodily response would encourage the acquisition of music skills. As Carlson (1980) suggests: "If movement is integral to the music program, the students will have a means of relating new concepts in music to the

familiar sense of rhythmic security and independence inherent in their bodies" (p. 56). Because the Orff approach focuses on the development of creativity, the researcher felt that this constant creating and recreating on the part of the student would do much to encourage music skill development. Thus, the researcher hypothesized that students experiencing Orff-Schulwerk training would show greater music skills acquisition than non-Orff students.

In summary, the researcher hypothesized that students receiving Orff training would demonstrate greater gross motor skill acquisition, attitudinal development and music skill acquisition than students not receiving Orff training. Specifically, the questions to be answered were:

1. Would the Orff students demonstrate greater gross motor skill development than non-Orff students?
2. Would the Orff students demonstrate more positive attitudes toward music than the non-Orff students?
3. Would the Orff students demonstrate greater music skill acquisition than the non-Orff students?

Hypotheses

This study examined the following hypotheses:

1. Children experiencing an Orff program will demonstrate greater gross motor skill development than children experiencing a traditional music program.
2. Children experiencing an Orff program will demonstrate greater

attitudinal enhancement than children experiencing a traditional music program.

3. Children experiencing an Orff program will demonstrate greater development in lengthening melodic memory than non-Orff students.
4. Children experiencing Orff training will demonstrate greater development in the ability to improvise melodic patterns than non-Orff students.

By assessing and comparing Orff-Schulwerk to the more traditional modus operandi of music education, this study aimed at a greater understanding of the effects and proposed benefits of the Schulwerk. A greater understanding of what the Schulwerk embodies may assist teachers in choosing processes and practices in accordance with children's needs.

CHAPTER II

THE STUDY

Design of the Study

Based upon the research hypotheses, the present study was designed as a single factor experiment involving 52 students who had been randomly assigned to one of three groups:

1. Group 1: taught by the classroom teacher, received traditional music education experiences and consisted of 17 students;
2. Group 2: taught by the researcher, received traditional music education experiences and consisted of 17 students;
3. Group 3: taught by the researcher, received Orff-Schulwerk music experiences and consisted of 18 students.

Three intact classes of grade one students served as volunteers for this study. Each class was assigned to one of the three treatment groups. Random assignment did not occur in the truest statistical sense. Nevertheless, the population sample was based on a random selection of students in as much as the decision to place a student in one of the grade one classes was not based on a particular characteristic. Therefore, as far as could be determined, the students were assigned to the treatment groups on a random basis.

The following were the specific null hypotheses tested at the .05 level of significance:

1. There is no significant difference between the experimental and control groups in gross motor skill development.
2. There is no significant difference between the experimental and

control groups in attitude development.

3. There is no significant difference between the experimental and control groups in the development of lengthening melodic memory.
4. There is no significant difference between the experimental and control groups in the ability to improvise melodic patterns.

Role of the Researcher

The present study required that the researcher be involved in the dual role of both researcher and teacher. Ideally, the study would have been conducted using two groups of students. One group would have received traditional music. The other group would have received Orff-Schulwerk. Both groups would have utilized the same teacher, allowing the researcher to partake strictly as a researcher. Within the Red Deer Catholic School District, however, the researcher was the only individual who possessed the necessary training in the Orff approach. Thus, the creation of the dyadic relationship of researcher-teacher was necessary.

Since the researcher was required to teach both the Orff group and the traditional music group, it was necessary to control for any possible researcher bias toward the Orff group. Therefore, a third group of students was included in the study. This third group of students received traditional music education practices taught by an individual other than the researcher and served as an additional control group. This particular group was instructed by their classroom teacher who served as a control teacher.

Selection of the Control Teacher

The choice of a teacher to act as a control for this particular study was a subjective selection. The researcher spent the previous ten years within the Red Deer Separate School District as a co-ordinator-consultant in music, team-teaching with classroom teachers, providing demonstration lessons and in-service training. The teacher selected for inclusion in this research had been conducting the traditional music education program independently of the researcher over the last several years and had worked with, and been closely observed by, the researcher on numerous occasions. This particular teacher possessed previous teaching experience, music background and music teaching experience, that is typical of elementary music teachers in the Red Deer Catholic School District. It was felt that these criteria were more than adequate to allow this individual to act as a control in this study.

Dependent and Independent Variables

Within this study, the independent variable was the music education instructional process. The dependent variables consisted of measurements of both a quantitative and qualitative variety. The Music Test (Glasgow & Hamreus, 1968), the M-P Pupil Attitude Scale (Copper Country Intermediate School District, 1973), and the Test of Gross Motor Development (Ulrich, 1985) were administered. Research in the qualitative vein, such as informal interviews of students and classroom teachers and observations of students, was also incorporated into the study.

The Research Method

The research method employed in the present study consisted of a blending of both the quantitative and qualitative perspectives as data were generated through the use of tests and through journal writing, observations and informal interviews.

A rationale for blending the two methods has been put forth by several writers. According to Miles and Huberman (1984), if one were to carefully examine the research being conducted under the guise of one epistemological stance or the other, one would discover that few researchers are not blending the two approaches. As a result, more and more data are being generated in which both quantitative and qualitative procedures are being employed.

Campbell (as cited in Howe, 1985) believes that the quantification of data extends, refines and provides a cross reference for qualitative data. By combining the two approaches, researchers are free to use whatever method or combination of methods, is dictated by the research question and will be on solid epistemological ground for doing so. Thus, the researcher can capture the best of both worlds (Howe, 1985).

Many researchers agree that the naturalistic setting for the study of human development provides a richness, vitality and validity that laboratory based research does not. Hence, this study was conducted in the natural setting of the elementary school classroom. Furthermore, naturalistic observation and laboratory based observation can be viewed as complimentary routes for gaining scientifically valid knowledge (Boehm & Weinberg, 1977).

It appears that there is a solid epistemological foundation for

using a combination of quantitative and qualitative data gathering methods. The research questions posed in the present study required that both perspectives be employed in order to obtain as accurate and valid knowledge as possible.

Participant observation. Through the course of this study, an ethnographic technique known as participant observation was used to amass the qualitative data. Participant observation is used to analyze and describe a particular cultural setting. Becker (as cited in Ball, 1984) defines participant observation as:

> The process in which the observer's presence in a social setting is maintained for the purpose of doing scientific investigation. The observer is in face-to-face relationship with the observed, and, by participating with them in their natural life setting, he gathers data. (p. 72)

The decision to incorporate qualitative data was based on the understanding that quantitative research gathering methods may not be sensitive enough to capture a "true" picture of events as they occur. Therefore, by immersion within a particular cultural setting, extensive data gathering may provide a richness and depth to understanding the human condition.

The methodology of the participant observer. Participant observation is generally used alongside interviews, direct observation, etc. The participant observer, however, is not bound to a definite methodological structure:

> One of the least structured methods of observation is participant observation. It is the least structured because

> the researcher neither puts much restriction on the type of information collected nor does he usually have a well-defined unit of analysis specified before entering the field. (Selltiz et al., 1976, p. 270)

Participant observation as employed in this study allowed the researcher to gather data through journal writing, interviews and the collection of children's stories and art work. Field notes were analyzed for any emergent themes. The researcher also incorporated triangulation in an attempt to improve the validity of the research findings. Miles and Huberman (1984) have suggested that " . . . triangulation is supposed to support a finding by showing that independent measures of it agree with it or, at least, don't contradict it" (p. 235).

In this study, data triangulation, i.e., "the inclusion of more than one individual as a source of data" (Mathison, 1988, p. 14) was employed. Therefore, by interviewing the students and teachers involved in this study, data triangulation served to help evaluate the strength of the research findings. Insights emanating from both the analysis of field notes for any emergent themes and the use of triangulation are discussed in the 'Conclusion' section in Chapter VI of this thesis.

Weaknesses of participant observation. Despite the fact that the naturalistic setting for research allows the "human-ness" of both researcher and subject to be in the forefront, this very strength may also account for the weaknesses inherent in such an approach. The literature identifies several potential problems which may arise from

this "human factor." One such difficulty is the fact that the researcher's own philosophical stance can influence the collection, analysis and reporting of events. McCall and Simmons (1969) suggest that while this may allow for a sensitive treatment of the data, it may also serve to misrepresent and distort the phenomena.

Secondly, the presence of an observer can affect those being observed and thus, change the setting. This obstacle can be overcome to some extent by allowing for a period of time in which the observer is part of the setting before actually participating as a researcher. As a result, the amount of time required for this to occur can also be considered as a weakness.

Thirdly, observer bias is very difficult to prevent or detect and its effects have far-reaching implications (Kidder, 1981). As well, the informant's image of the observer may affect the manner in which the informant responds thereby altering the true situation (Vidich, 1969). Finally, since the data is not treated to statistical analyses, the chance factor cannot be controlled nor are the results generalizable to other populations.

Strengths of participant observation. The insights and in-depth understandings of a cultural setting that are achievable through participant observation may be the major strength of this enthnographic technique. The detailed knowledge of the situation is acquired as a result of the technique being flexible without limitations being imposed in advance. This cultural immersion allows the observer to view events holistically rather than in a piecemeal fashion as well as allowing the observer frequent returns to data. In other words:

> The descriptive power, the ability to incoproate in data the form, function and context of the behavior of a specific social group, and retention of the data for considered and repetitive analysis are the major strengths of participant observation (Gilmore & Glatthorn, 1982, p. 44).

The researcher is thus able to view the data in context within a comprehensive framework.

In summary, a combination of both the positivistic and naturalistic research settings was used in this study in an attempt to provide scientifically valid knowledge. By combining the strengths inherent in each methodology, perhaps a clearer understanding of the forces which shape human conduct will become evident.

The Sample and Sample Selection

As explained, the subjects involved in this study were randomly assigned to three grade one classrooms in two schools within the Red Deer Catholic School District. The sample consisted of 52 students aged 6-7 years. The two schools involved in the study were subjectively selected and were chosen for several reasons. Both schools were considered to possess similar ecological environments. That is, both schools were comparable in size, socio-economic status and possessed similar administrative and teacher support, and school atmosphere. A further factor which contributed to the selection of the schools to be involved in the study was that one of the schools contained two grade one classes. This was considered to be most advantageous.

Since two classes were housed within the same school setting, a control of other school variables for these two groups of children was possible. The researcher speculated that noteworthy comparisons might emerge if two classes experienced distinctly different modes of music instruction while at the same time experiencing the same ecological environment. For example, would the Orff students behave differently on the playground than the non-Orff students? That is, would the Orff students repeat some of the singing games and activities on the playground? Would the Orff students discuss their instrumental experiences with the non-Orff students? Would the Orff students tout their music experiences as being different or more fun than what the non-Orff students were receiving? Furthermore, what differences would the other teachers notice between the Orff group and the non-Orff group? Would the Orff program generate interest in the other teachers?

These questions were not the primary focus of the study. However, it was felt that if valuable information emanated from this situation, then it would surely add to our understanding of childrens' perception of, and performance within, our music classrooms. Therefore, treatment conditions were not assigned randomly to the three grade one classes. The Orff-Schulwerk treatment condition was randomly assigned to one of the two grade one classes situated in the same school. After determining the Orff group, each of the two remaining classes then had one of the two 'Control' conditions randomly assigned.

Procedure

Each of the three classes received music three times per week, on

Tuesday, Wednesday and Friday. The researcher worked with the control teacher in order to ensure the curricular activities and methodology for the class of traditional music taught by the researcher and the control teacher were, indeed, similar.

The study was designed to take place over 12 weeks, with each class receiving three 30 minute sessions per week. In actuality, however, the sessions for all classes were a minimum of 40 minutes. Due to the ease of scheduling at both schools, the researcher and control teacher were allowed to take whatever time was necessary to complete the day's activities. This proved to be particularly expedient on more than one occasion.

Organization of the Traditional Music Education Classes

The Red Deer Separate School District has, for many years, made use of the Exploring Music (1975) series by Holt, Rinehart & Winston. Material from this music series for the grade one level was used for the duration of the study.

For the most part, each class utilized the following format: (1) Rhythmic Exercises, (2) Vocal Exercises, (3) Lesson Core, (4) Review/ Listening/Movement. Most of these activities were directly related to or taken from a particular song or activity in the Exploring Music (1975) series. Appendix A contains examples of these activities.

Organization of the Orff-Schulwerk Class

The materials used for the Orff class were drawn from several sources. Appendix D contains a review of these sources of material.

The format for the Tuesday and Wednesday sessions focused on

activities which would encourage development in the areas of speech, singing, playing instruments, listening, movement and improvisation. Some of the activities included such things as using non-pitched percussion as sound substitute for words, creating sound effects to accompany stories and chants, creating original notation, creating stories and dramatization of nursery rhymes. Appendix B contains further examples of Orff activities.

Friday's class was "Storybook Day," i.e., a class devoted specifically to creative dance. The materials in use for the creative dance sessions were drawn from several resource components. Appendix E contains a review of these sources of materials. Through creative dance activities, the children explored various means of locomotion, for example, combined with an exploration of space, relationships, time and effort. Once the kinesthetic information was explored, music and language, or image was added. The final outcome was a dance from the giant "Storybook." Appendix C contains examples of creative dance activities.

One of the benefits of Orff-Schulwerk is that the activities naturally flow into other curricular areas. The holistic nature of the approach allows for the themes generated from the music activities to have the "spin-off" effect into such areas as language arts and art. Throughout the course of this study, if the themes in the Orff music class were appropriate for the classroom teacher's use, those themes were redefined within the context of other subject areas. While the classroom teacher did not engage in <u>music</u> activities in the strictest sense, one of the benefits accrued from the implementation of an Orff

program is the possibility of endless redefinition of ideas within many different contextual settings. In a sense, the idea of "open-ended closure" (Bellflower Unified School District, 1968, p. 72) is always at the forefront of any Orff activity.

The Pilot Study

A pilot study was conducted prior to the main study in order to maximize the efficiency of the main study. The pilot class received Orff-Schulwerk techniques and was from a school not involved in the main study.

The pilot class was undertaken for several reasons:

1. to determine the feasibility of extending materials and activities into other curricular areas. While not of primary concern, it was felt that it would be wise to provide as integrated an experience as possible in order to take full advantage of what the Schulwerk offers;
2. to determine administrative problems that might arise during testing;
3. a small room with a table and few distractions was found to be suitable for administering the Music Test. Tape recording students' responses was found to be necessary for accurate scoring. Students responded favourably to having their responses tape recorded;
4. the gym was found to be a suitable environment for the administration of the Motor Skills Test. A videotape of students' performances was found to be necessary to ensure accurate scoring.

As well, Ulrich (1985) provided illustrations and a list of specific criteria for each particular motor skill. Any would-be examiner was advised to practise observing the specific components on children prior to any formal assessment. Hence, the pilot class provided the examiner with this necessary prerequisite practise that allowed familiarization with the test items, equipment, directions, performance criteria and overall test administration procedure. This "rehearsal" highlighted the necessity of prearranging the testing environment in order to minimize distractions and administration time;

5. administering the M-P Pupil Attitude Scale within a group situation was found to be satisfactory;
6. tape recording the questions of the Music Test proved to be necessary in order to ensure a consistent presentation;
7. the teacher of the pilot class, being an artist as well, as expressing intense interest in both the promotion of creativity as well as the possibility of fine arts integration, was able to capitalize on her artistic skills to extend the activities, particularly the dance activities, into the visual arts. This teacher was successful in integrating many of the activities into math and language arts, which proved to be beneficial in providing inspiration and encouragement to the teacher of the Orff group involved in the main study. While the feasibility of overall integration was not the main thrust of the study, this willingness to experiment on the part of the classroom teachers proved to be the coup de grâce in its overall effect on the project.

Interview Guidelines

Informal interviews of both children and teachers were conducted to provide genuine disclosure of information regarding attitudes toward the Schulwerk. While the interviews encouraged dialogue, they also provided important data. Mahe (1984) has suggested that interviewing is not an easy task. The researcher must refrain from "imposing her definitions of the situation upon others" (p. 279). The following questions were used to guide the interviews with students:

1. What is your favorite subject in school?
2. What is the best part about coming to this school?
3. What do you like best about music class?
4. What do you dislike about music class?
5. Which music activities do you think are hard/easy?
6. Do you feel tired after music class? Do you feel more tired after music class than after reading, math or art, for example?
7. Do you think that what we do in music class is like work or is it like playing?
8. Do you sing some of the songs and play some of the games at recess or at home? Do you teach some of the songs and games to your parents, friends, etc.?

Interviews with the teachers were influenced by the following questions:

1. What do you perceive to be the differences between the Orff program and a more traditional music program?
2. Would you prefer to work in an Orff program or in a more traditional music program?

3. Has there been a change in your own music instruction?
4. Have any of the Orff activities been of use as a springboard into other areas of the curriculum?
5. Has there been any change in planning/flexibility of your overall class day? How has your own teaching been affected by your involvement in the project?
6. Has there been any influence of the project seen in the school in general?
7. What has been the parental reaction to the Orff program?
8. Has the project influenced any aspect of the physical education program?
9. How much music do you use as a part of the regular day? Of what do these activities consist?
10. Were there any problem children who benefitted from the project?
11. Do you believe the program has benefitted the children in any particular way such as in the areas of: creativity, independence and freedom, confidence, listening skills and attitude toward school?

Some Limitations to the Study

1. As this study involves three grade one classrooms not chosen at random, the results may not be generalizable to classrooms outside of this population.
2. As this study involves two schools which were not randomly selected, the results may not be generalizable to all schools in all situations.

3. This study was confined to a 12 week time frame, therefore, the results may have been affected by this restriction.
4. The Copper Country Intermediate School District (1973) reported that the M-P Pupil Attitude Scale has been found to discriminate satisfactorily. However, no further mention of the reliability or validity of the test was reported. Also, Glasgow and Hamreus (1968) did not report the reliability or validity of the Music Test. Furthermore, this study also incorporated an investigator designed test to measure an aspect of music skill development. Hence, these tests are unlikely to be perfectly reliable and valid. Therefore, qualitative data was also gathered in an effort to compensate for this situation.

Assumptions

1. It is a truism that children learn to move and move to learn. Therefore, learning can only occur through active participation.
2. Orff-Schulwerk is an integrated approach to music education which has the capacity for teaching the elements of music, influencing student attitudes toward music instruction, as well as encouraging motor skill development.

CHAPTER III

MOTOR SKILLS

Movement and Motor Skills in the Music Classroom

Modern educators can hardly challenge the idea that an unequivocal relationship exists between movement experiences and learning readiness (Aronoff, 1980; Benyon, 1969). Researchers support the idea that movement may affect learning gains in cognitive and social areas if appropriate motor skills are introduced at a particular point of readiness:

> Psychologists recognize movement as an important facilitator of perception and cognitive growth in early childhood, hypothesizing that due to the principle of interrelatedness, an improvement in a motor area may have a positive effect on improvement in a social or academic area. (De Lorenzo, 1980, p. 5)

Furthermore, many researchers identify the simultaneous development in the cognitive, affective and psychomotor areas as being of tremendous importance in an integrative educational experience (De Lorenzo, 1980).

Much learning seems to occur through motor activities. Movement experiences are a part of a child's world long before the initiation of formal schooling. The child has become in tune with the rhythmic sense of his own body. Moreover, Aronoff (1980) argues that movement exploration, which provides experiences in the psychomotor, cognitive and affective domains can pave the way for "primary preverbal connections to further analytic and gestalt learning" (p. 6).

Schmitt (1971, as cited in De Lorenzo, 1980) suggests several important reasons why movement can enhance musical learning. Activity appears to promote development in cognitive structures due to active participation, hence activity is thought to enhance musical learnings:

> Non-verbal modes of cognition become important for refining perceptions. In addition, because abstract thought and greater use of symbols appear in later stages of cognitive functioning, movement as well as visual and aural activities must precede music notation. Thus, movement assumes a position of paramount importance in early music learning. (p. 20)

Movement experiences which have usually existed solely for the benefit of the affective area have, traditionally, been coupled with an inadequate definition of objectives. The benefits customarily attributed to movement experiences, such as "social skills, of release of energy after quiet seatwork, . . . and of a fun activity after 'serious' learning" (Aronoff, 1980, pp. 7-8) do little to highlight the relationship of movement to all aspects of music.

If we accept that music is rooted in movement (Aronoff, 1980), then the relationship between music and movement is self-evident. The child who is encouraged to use his body as a musical instrument, will gain a first-hand understanding of the interplay between the various musical elements (Aronoff, 1968). This point has been made by Wilmouth (1970) when he stated:

> Through training in rhythmic movement at an early age, the young child experiences large and small muscular movements to

the music he hears. He can express and feel the many changes of mood, rhythm, tempo, phrasing and dynamics of music. As the music changes, so must he change; therefore, his body co-ordination and concentration develop self-confidence, move more freely, and grow in his total awareness of music. This child is becoming not just a performer on a musical instrument, but an individual expressing movement through rhythm, nuance (tempo and dynamics), phrasing and form. In addition, he understands its real meaning, because he himself has felt it, experienced it, and is performing it in his own personal way. (p. 3)

Research Relating Movement and Motor Skills in the Music Classroom

Only recently have investigators undertaken the study of the relationship between movement and increased musical learning gains. Cheek (1979) studied, primarily, the effect of systematic psychomotor experiences on the ability of fourth grade students to discriminate between pitch, intervals, meter, major/minor mode, tonal center and music reading skills.

Cheek (1979) taught both the control and the experimental groups a comprehensive music program consisting of such activities as listening, singing, playing recorder and percussion instruments, and creating and analyzing music. While the objectives, materials and teaching styles were identical for both groups, the experimental group experienced movement activities such as creative movement, body rhythms and the use of hand gestures as an integral component of their program. The

experiment was conducted over 15 weeks with three 30-minute periods per week.

The results indicated that the experimental group scored higher in meter discrimination, music reading skills and rhythm response. Pitch, interval and major/minor mode discrimination did not appear to be affected by the treatment. The investigator concluded that the inclusion of systematic psychomotor experiences should receive serious consideration from music educators. The importance of the Cheek (1979) study rests not only in its experimental treatment of movement within a musical sphere, but also in its inclusion of movement within a comprehensive music curriculum (De Lorenzo, 1980).

Sins (1976) conducted a study involving students of below average intelligence in two sixth grade classes, to determine the effects of movement training on the acquisition of melodic contour, returning complete melody, ostinato, sequence and meter. Results indicated that movement was a viable medium for teaching the concepts of returning complete melody, ostinato and sequence. No group demonstrated significant improvement in the areas of melodic contour and meter.

Boyle's study (1970) emphasized the importance of rhythmical movement in the study of music. According to Boyle (1970), many students experience difficulty and/or an inability to sight-read music. Accordingly, the musical experiences of these students become limited. Boyle (1970) suggested that many music educators believe that deficiencies in sight-reading are directly related to rhythmic difficulties. While technical deficiences may compound the difficulties associated with rhythmic performance, "the performance of

rhythms is still recognized as the most deficient element in the performance of school bands" (Boyle, 1970, p. 308).

Boyle (1970) hypothesized that:

> . . . an approach to music reading that includes bodily movement in the form of foot tapping to mark the underlying beat and handclapping as a method for practising rhythm patterns in relationship to this beat will aid instrumentalists in the reading and performing of rhythms as they occur in annotated music. (p. 309)

Boyle (1970) included 22 directors of 24 junior high school training bands in his study. Data was based on the scores of 191 students. The experimental training was conducted over 14 weeks. All bands experienced 30 minutes of rhythm training per week using the designated materials and techniques in the teaching of rhythm reading.

All bands used the same method book during the rhythm training sessions and both the experimental and control group directors were given instructions to progress through the book at a rate most advantageous to their group as well as being left to their own devices in teaching the rhythm patterns to be learned (Boyle, 1970, p. 311).

However, the control group directors:

> . . . were specifically instructed to prohibit foot tapping and other bodily movements (except those normally required in the playing of the instruments) during the rhythm training portion of the band rehearsal. They also were asked to discourage any such movements during the remainder of the rehearsal periods or during students' home practise. (Boyle,

1970, p. 311)

The directors of the experimental bands were specifically instructed to incorporate the following activities into the training sessions:

1. Listening to recordings of music to recognize the beat.
2. Marking time to the underlying beat.
3. Clapping rhythm patterns while tapping the beat with the foot.
4. Playing rhythm patterns on a single note while marking the beat with the foot. (Boyle, 1970, p. 311)

Both the control and the experimental groups improved significantly in their rhythm sight-reading when tested. However, the experimental group scored significantly higher than the control group in this regard.

Boyle (1970) concluded that:

> While a high correlation between rhythm sight-reading and music sight-reading does not prove that the latter is dependent upon the former, it does lend strong support to such a thesis. (p. 318)

Furthermore, the significant gains made by the experimental group would suggest that band directors devote a portion of each rehearsal to rhythm reading training (Boyle, 1970). Boyle (1970) further recommended that bodily movements such as the ones incorporated into the study, specifically, foot tapping to mark the underlying beat, and the clapping of rhythm patterns, be used to practise the rhythm patterns to be learned. As well, the foot tapping used to mark the underlying beat should continue as students play the rhythm patterns on

their respective instruments.

It would be a reasonable assumption that long-term movement experiences can ultimately affect the development of motor skills. But of what use are motor skills in the study of music? Gilbert (1980) explains:

> Music performance is one functional area in which motor skills are integrally involved. Since participation in music activities often requires performance, motor skill is a necessary prerequisite for optimum musical response. Motor skills contribute a central aspect of musical functioning . . . . (p. 167)

Instrumentation for Motor Skills

The Test of Gross Motor Development, hereinafter referred to as TGMD, was designed by Ulrich (1985) to evaluate basic skills in gross motor development. Williams (as cited in Ulrich, 1985) provided a definition of gross motor development: "the skillful use of the total body in large muscle activities that require temporal and spacial coordination of movement of a number of body segments simultaneously" (p. 1). Ulrich (1985) provides a further explanation: "Gross motor development frequently includes skills that are used to transfer the body from one location to another and to propel and receive objects" (p. 1).

The test was designed to evaluate the gross motor skill development of children three to 10 years of age and focus on 12 gross motor skills frequently taught to pre-school, early elementary and special education

students. The test is divided into two subtests, each subtest assessing a different aspect of gross motor development: locomotion, and object control.

Locomotion subtest: measures those skills which shift the center of gravity from one point to another: run, gallop, hop, leap, horizontal jump, skip and slide.

Object Control subtest: measures those skills involved in projecting and receiving objects: two-hand strike, stationary bounce, catch, kick and overhand throw (Ulrich, 1985, p. 2).

The Motor Development Clinic of the University of Alberta provided assistance in searching for and choosing an appropriate motor test. Consultations with the Motor Development Clinic personnel allowed the researcher to become acquainted with appropriate procedures for observing and evaluating motor skills. This training was acquired prior to the initiation of the study in order for accurate test administration, observation and evaluation.

Procedures for Administering the Test of Gross Motor Development

Students in all groups were tested on an individual basis, and each performance was videotaped for accurate scoring. Prior to the initiation of the test, rapport was established with each student. Every effort was made to standardize test administration.

In an effort to minimize any discriminatory practises, the examiner adhered to the following regimen, as suggested by Ulrich (1985, p. 5):

1. The appropriate information was filled in on the student's scoring sheet.

2. An accurate demonstration was provided, along with any necessary verbal information prior to evaluation.
3. A practise trial was provided to ensure the student understood the task.
4. An additional demonstration was given if it appeared that the student did not understand what to do.

Scoring Procedure for the Test of Gross Motor Development

Each gross motor skill within the test is accompanied by 3 or 4 components designated as performance criteria that, in general, represent a mature pattern of the skill. Specific subtest instructions and performance criteria are provided in Appendix F.

The following were the specific steps required as standard scoring criteria as provided by Ulrich (1985):

1. Each subject performed three trials of each gross motor skill: run, gallop, hop, horizontal jump, skip, slide, two-hand strike, stationary bounce, catch, kick, and overhand throw.
2. The examiner observed the student as the skill was being performed, and concentrated on the performance criteria.
3. If the student performed a behavioral component two out of three trials correctly, then a "1" was placed in the appropriate box in the appropriate assessment column. A "0" was assigned when the student did not perform a behaviorial component two out of three times correctly.

Two assessment columns were provided for two separate assessments. However, the present study only necessitated the use of the first

assessment column, as students were tested only once. Figure 1 provides an example of a completed assessment for the run test item as provided by Ulrich (1985).

Results and Data Analysis for Motor Skills

The mean scores together with standard deviations for the object control portion of the TGMD are presented in Table 1. The mean scores were arrived at by converting the standardized scores to percentages. For example, a score of 25/50 can be converted to 50%. Thus, the values represent the mean percentage scores. Figure 2 illustrates the mean percentage scores for the object control portion of the TGMD. The individual scores are provided in Appendix I.

The traditional group taught by the researcher lagged behind the Orff group by more than 11 points. This same group was more than 13 points behind the traditional group taught by the control teacher. The results of a one-way analysis of variance using the SPSS-X computer program showed that no significant differences existed between groups $F(2,44) = 3.1879$, $p > .05$, despite this seemingly wide gap in scores. A summary of this information is presented in Table 2.

The mean scores and standard deviations for the locomotor subtest of the TGMD are presented in Table 1. The mean scores are also illustrated in Figure 3. The mean scores were arrived at by converting the standardized scores to percentages, as in 25/50 = 50%. Hence, the values represent the mean percentage scores. Individual scores are provided in Appendix I. Based on the mean scores, the Orff group did not perform as well as did the two groups receiving traditional music

LOCOMOTOR SKILLS

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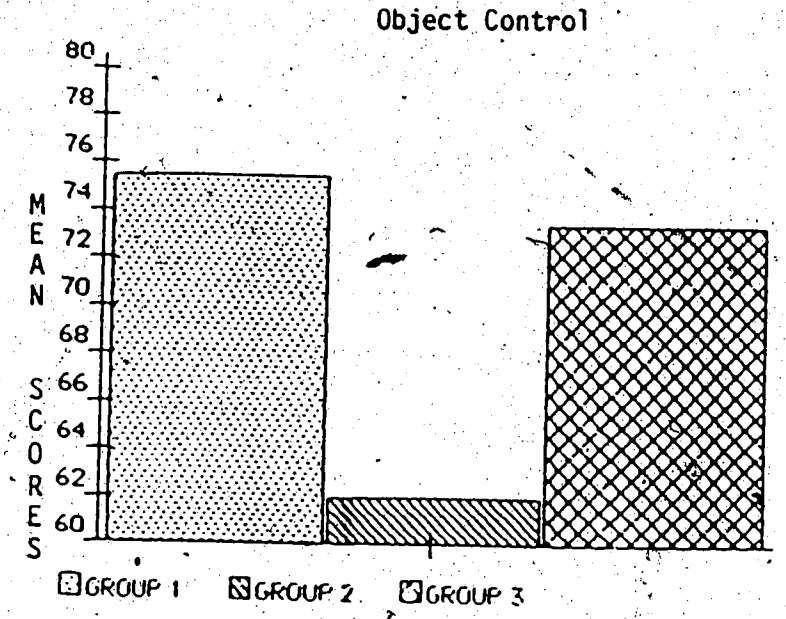
Figure 1. A sample assessment for the run test item. Ulrich, D. (1985). Test of Gross Motor Development. Austin, TX: Pro-Ed.

Table 1

Means and Standard Deviations for TGMD Subtests and Total Test Score

Test	Group	Mean	SD
Object Control	1	75.46	± 13.11
	2	62.00	± 15.23
	3	73.44	± 17.44
Locomotor	1	85.80	± 7.92
	2	81.00	± 7.58
	3	76.38	± 8.06
Total Test	1	81.53	± 6.15
	2	73.00	± 9.02
	3	75.05	± 10.75

Note: Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.



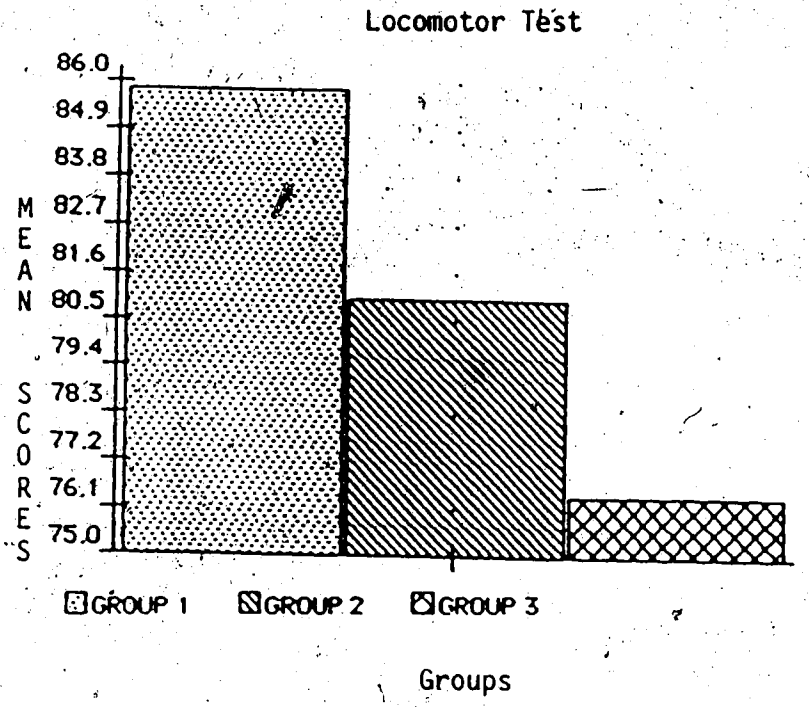
Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.

Figure 2: Mean percentage scores: Object control

Table 2

One-Way ANOVA: Object Control Subtest of TGMD

Source	df	SS	MS	F
Between	2	1536.0350	768.0175	3.1879
Within	44	10600.1778	240.9131	
Total	46	12136.2128		



Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.

Figure 3: Mean percentage scores: Locomotor skills

education. The Orff group was more than nine points behind the traditional group taught by the control teacher. The Orff group was more than four points behind the traditional group taught by the researcher. The results of a one-way analysis of variance, using the SPSS-X computer program revealed that significant differences existed between the groups. The Scheffe Multiple Means Comparison Test was used as the post-hoc comparison procedure. Results of this procedure revealed that a significant difference existed between the Orff group and the traditional group taught by the control teacher, in favor of the non-Orff group, $F(2,44) = 5.8428$, $p < .05$. A summary of this information is presented in Table 3.

While a breakdown of the gross motor skills data as shown in Tables 1, 2 and 3, and Figures 2 and 3 is useful as a point of departure for discussion, it is the total motor skills scores that must, in regard to this test, serve as an index of gross motor skill acquisition. As Ulrich (1985) states: "Because the composite consists of all 12 skills, it is generally a more reliable measure than the shorter subtests" (p. 14).

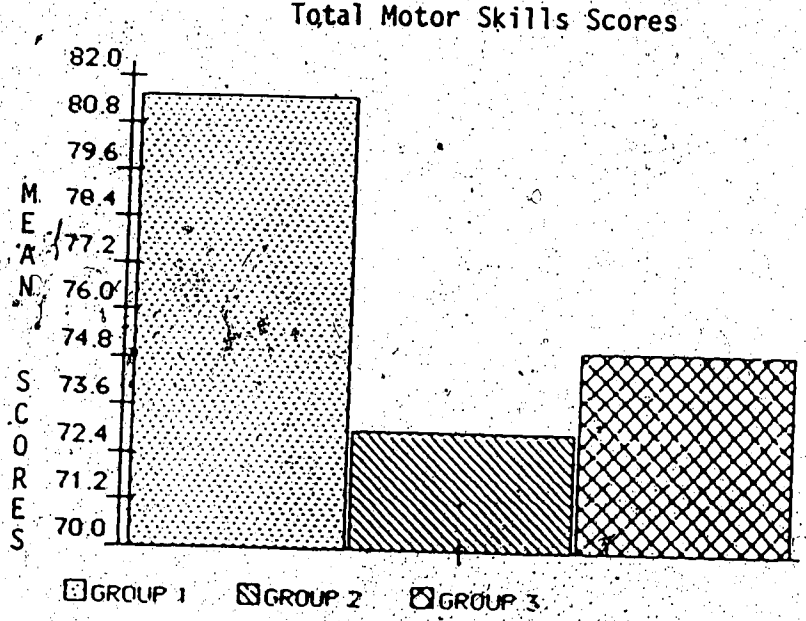
The mean scores and standard deviations for total motor skills results are presented in Table 1 and illustrated in Figure 4. As previously mentioned, the mean scores were arrived at by converting the standardized scores to percentages, as in 25/50 = 50%, thus, the values represent the mean percentage scores. Individual scores are provided in Appendix I. The traditional group taught by the researcher was more than eight points behind the traditional group taught by the control teacher. The Orff group was more than six points behind the

Table 3

One-Way ANOVA: Locomotor Subtest of TGMD

Source	df	SS	MS	F
Between	2	725.7478	362.8739	5.8428*
Within	44	2732.6778	62.1068	
Total	46	3458.4255		

* $p < .05$.



Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.

Figure 4: Mean percentage scores: Total test scores

traditional group taught by the control teacher. Based on the mean scores for total motor skills results, the Orff group did not perform better than the two non-Orff groups. In fact, significant differences existed between the two traditional groups on total motor skills scores as revealed by a one-way analysis of variance using the SPSS-X computer program, and subsequent Scheffe Multiple Means Comparison Test. No significant differences were found to exist between the Orff and non-Orff approach in overal motor skills development, $F(2,44) = 3.6437$, $p < .05$. Thus, a failure to reject the null hypothesis which states: "There is no significant difference between the experimental and control groups on gross motor skill development" is necessary. Table 4 summarizes the information.

Discussion of Motor Skills Results

The mean performance of the Orff group was lower than expected, particularly in the locomotor subtest. Given the fact that "Storybook Day," i.e., creative dance day, consisted mainly of these same locomotor movements tested in the TGMD, such as galloping, skipping and sliding, the very nature of the creative dance program provided the Orff students with a more concentrated exposure to, and practise of, these skills.

The traditional classes were also exposed to these gross motor skills, but in more of an isolated context, that is, not wrapped within an image or a story. It may very well be that the nature of the Test of Gross Motor Development, with its testing of isolated gross motor skills, allowed the traditional students to perform better. Since the students of the two traditional groups had practiced in an isolated

Table 4

One-Way ANOVA: Total Test Scores of TGMD

Source	df	SS	MS	F
Between	2	589.0669	294.5335	3.6437*
Within	44	3556.6778	80.8336	
Total	46	4145.7447		

* $p < .05$.

context, the transfer effect to the testing situation was probably very high.

The reseacher observed that during the testing portion of the TGMD, it appeared that Group 1 contained "better athletes" in terms of swiftness, precision and economy of body movement. Yet the "quality" of gross motor movement and the use of space, pathways and levels evidenced by the Orff group when performing the various dances, as observed by the researcher, was by far superior to both traditional groups. The Orff students fared better in incorporating these locomotor skills within a creative movement setting. The Orff students also exhibited confidence and creativity in their movement patterns that far surpassed the students in the traditional music program. The attitude of the Orff students toward motor performance also seemed to be more positive as they eagerly anticipated "Storybook Day," that is, the creative dance lesson.

Perhaps these observations could serve as a reminder that learning does not occur in isolation. Information compiled from testing skills in isolation is precisely that, and what may be more important is the ability of the individual to utilize and integrate the acquired skills in order that they become one's own.

To summarize this section on motor skills, the statistical evidence indicates that the Orff program did not encourage the development of motor skills to a greater degree than did the traditional music education approach. However, the qualitative data collected during the study does not appear to verify the statistical results. The discrepancy between the quantitative and qualitative data may be due in

part to the TGMD being inappropriate or not sensitive enough to detect significant differences. While the very nature of the creative dance program allowed the students to experience the development of travelling, turning, contracting, rising, stopping, expanding, vibratory, rocking, jumping, percussive and sinking actions (Boorman, 1986) the TGMD did not allow for these "quality" aspects to be assessed. Furthermore, what appeared to be more important than performing the TGMD motor skills in isolation was the manner in which the skills were utilized and the attitude which accompanied motor performance. A further discussion and expansion of these points will appear in the conclusion of this thesis.

CHAPTER IV

ATTITUDE

Attitude and Its Importance in the Music Classroom

With an ever increasing emphasis on educating the "whole" child, the idea of activity learning has gained greater pre-eminence. Activity learning seems to imply some form of movement for, as we know, children learn to move and move to learn. Along with this push toward active involvement in the learning process, the effects of movement experiences on conceptual understandings and aesthetic appreciation has begun to gain recognition. Studies are beginning to emerge which point toward movement as benefiting children not only in cognition but also in self-concept.

"Music and movement are inseparable elements in music education as envisioned by Carl Orff" (Lunz, 1977, p. 207). Because of the wealth of movement experiences which the Schulwerk provides, Brown (1980) believes that while children engage in such activities as singing while simultaneously snapping, clapping, patschen and stamping, moving to pitched and non-pitched percussion and other similar types of Orff activities, a very high level of motor co-ordination is developing: "manual and digital control, laterality, eye-hand and gross and fine motor control" (p. 320).

Within a musical setting, it is entirely possible that by providing a variety of movement experiences, everyone will experience some success. As a result:

> A positive self-concept helps the child to be open to new experiences in a more confident way. Similarily when a child is able to comprehend a music concept more readily through movement, he feels better about himself for having accomplished a task. (Carlson, 1984, p. 4)

For too many years, the standard music program could be characterized by its reliance on tests, charts, paper and pencil exercises, and the memorization of music history facts, for example, with very little thought being given to whether or not the child experienced any involvement in his musical education.

While a solid understanding of the principles of music [illegible] is a necessity pursued by most music educators, the importance of the relationship between music and personal relevance to the individual cannot be underestimated. "No musical meaning exists, except as it is felt" (Flagg, as cited in Carlson, 1984, p. 7), for as Carlson (1984) has stated:

> The power to know and the power to think are not enough in themselves to complete the educational process. The significant result of education is the effect the outcome has on the individual which, ultimately, is how one feels about what he has learned. (p. 7)

When a child can display his understanding of music concepts by creating and recreating, whether through speech, song, or movement for example, the final outcome is his own, it is unique and it displays what he ultimately believes. There is nothing more powerful than ownership and when, through his efforts, the child owns his creation,

the musical experience has become more meaningful to him (Carlson, 1984, p. 8). All experiences help to shape how the individual perceives the incoming information:

> We consist only of our experience. All one knows of himself, and all one can value is his own consciousness. The most important thing in the world to the individual - the only thing possible - is the quality of that consciousness. (Carlson, 1984, p. 8)

The Pocket Oxford Dictionary (1969) has defined attitude as a "way of thinking" (p. 46). To be involved in an activity means, to some extent, to involve one's attitudes or way of thinking toward that activity. In this study, to be involved in movement or music activities, for example, would involve one's attitudes toward these activities. Since attitudes cannot be measured directly, attitudes are inferred by one's behavior when in contact with incoming stimuli. If the classroom experiences are structured in a manner which allow the child to use the experiences as building blocks to further learning, then the learning needs of the child are being met in a positive manner. The converse can be applied to negative incoming stimuli and its probable effect on both the child's attitude and his behavior. Herein lies the urgency. Most universally accepted definitions of behavior include the assumption that attitudinal behavior is learned. However, modifications in attitudinal behavior are also possible through learning. Research (e.g., Carlson, 1984) suggests that a behavioral change is concommitant with attitudinal change. The importance of this information for those involved in music education is

that if music learning gains are to be expected, then children must experience activities which allow them to develop a positive concept of self which in turn will have a direct bearing on the development of a positive attitude toward music.

Research Relating Movement and Attitude

Carlson (1984) undertook a study examining the effects of movement activities on fifth graders' attitudes toward music class. Two classes from each of two schools were involved in the study with the control and experimental groups being randomly selected. One school was situated in a predominantly lower socio-economic area while the other school was situated predominantly in an upper socio-economic area.

The study emerged over an eight week period with all classes receiving two 30 minute lessons per week. The same instructor conducted each class, with the material remaining the same but with the methodology differing.

Results of the study indicated that the experimental group responded more favourably as a result of movement experiences being an integral part of the music program. As well, males were more responsive than females within the movement groups. Socio-economic status appeared to have no bearing on students' attitudes toward their music program.

Research Relating Orff-Schulwerk and Student Attitudes

According to Glasgow and Hamreus (1968), many music educators view the Schulwerk as unique in its ability to motivate elementary students to participate in music activities. Therefore, they speculated that a

significant improvement in student attitudes would occur as a result of students experiencing the Orff approach.

The study involved two classes each of grades 1-6, which included a total of approximately 300 students. Each class received two 30 minute classes of Orff music instruction for the entire school year. The Orff instruction was initiated simultaneously at all grade levels and each grade began at the same starting point, following a sequential program development, to whatever level they were capable of achieving by year's end (Glasgow & Hamreus, 1968, p. 10). Due to time constraints within the testing period, 15 students from each class (180) were randomly selected for testing purposes (Glasgow & Hamreus, 1968, pp. 1-2).

The study employed two attitude scales which utilized the semantic differential technique. One instrument was designed for upper elementary students, the other was designed for primary students. Both attitude scales were administered twice, once in the fall and once in the spring.

The upper grade instrument incorporated eight groupings based on bipolar adjectives possessing "high evaluative loadings" (Glasgow & Hamreus, 1968, p. 13): good-bad, wise-foolish, important-unimportant, kind-cruel, friendly-unfriendly, happy-sad, pleasant-unpleasant and fair-unfair. Students were questioned on the following ten items: music class, singing, moving in rhythm to music, singing in small groups, playing an instrument, making up songs, listening to music, singing alone in music class, learning to read music, and music out of school (Glasgow & Hamreus, 1968, pp. 13-14).

The design of the instrument for the primary grades was basically the same as that illustrated in Figure 5, but pictures were used rather

Music Class

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Figure 5. Attitude scale employed by Glasgow and Hamreus (1968)

than verbal scales. The bipolar adjectives, happy-sad and good-bad, were each depicted as a series of faces changing in expression from a happy to a neutral then to a sad expression in five stages.

> The faces were then presented to primary level youngsters who were asked to suggest labels which fit the faces. Class consensus was then obtained on the faces which represented very happy and very sad, and which represented very good and very bad. Similar procedures were followed in arriving at faces which were somewhat positive and negative and a face which was neutral in expression. (Glasgow & Hamreus, p. 14)

As well, the lower grade instrument questioned the children on only eight items, deleting singing in small groups and singing alone.

Lower grade results. On the happy-sad scale, student attitudes showed a slight decline in post-test mean scores in comparison to pre-test mean scores. Despite a slight decline in attitude, general attitudes toward music were favourable. Similarily, on the good-bad scale, student attitudes, although generally favorable, showed a slight decline in post-test mean scores in comparison to pre-test mean scores.

Upper grade results. With the exception of one grade 6 class, the results of the attitude tests for the upper grades were approximately the same as those for the primary grades. The means for the grade 6 class in question ranged from generally positive on the pre-test to a mixture of means both positive and negative on the post-test.

While attitudes were generally favorable toward all music activities, there was a slight decline in favorableness during the course of the study, and the researchers concluded that "the Orff

approach as employed in this study did not contribute to a positive growth in attitude toward music." (p. 33). The researchers speculated that a slight decline in attitude might be reversed by increasing instructional time and decreasing testing time.

The above recommendation is a valid one which all researchers must at least acknowledge. If the testing requires fairly lengthy periods for administration, young children have difficulty concentrating for long periods of time, hence the validity and reliability of the results may be at risk. In addition, the validity and reliability of the attitudinal measurements as used in the Glasgow and Hamreus (1968) study may be in question. The attitude measurement test was based on a 5-point Likert response. It could be argued that five response measurements required of the testing instruments is too complex for young children, therefore, the conclusiveness of the evidence could be questionable.

Results similar to the Glasgow and Hamreus (1968) study were obtained by the Bellflower Unified School District (1968). However, the Bellflower (1968) project was unique in that it focused primarily upon the impact of Orff-Schulwerk as it relates specifically to creativity, at a time when only prior meagre attempts had been made by others to measure the power of the creative process in effecting behavioral change. In fact, according to the researchers, by 1968 the Bellflower measurements were the only available literature.

The Bellflower (1968) project was a longitudinal study which began as a pilot project consisting of 10 classes and which expanded to include six cities involving 23 classes at both the elementary and

secondary levels. After the initial launch of the project, the pilot classes continued to receive two lessons per week while the remaining district classes received one weekly lesson.

In the original proposal to the U.S. Office of Education, the following were submitted as objectives of the project:

(1) to increase spontaneity and creativity for students in their study of music

(2) increase participation in subsequent music programs

(3) develop more creative approaches to music instruction

(4) increase student enjoyment and satisfaction

(5) increase correlation of music with other aspects of the curriculum

(6) produce music compositions based on the Orff-Schulwerk approach. (p. 59)

Due to the developmental nature of the project, the usual rules of experimental design and field control could not be rigorously applied. Furthermore, it was agreed the process of evaluation would occur in the ongoing refinement and definition of objectives, contents, contexts and outcomes and to provide data to facilitate future decision-making with regard to subsequent program development.

The attitude assessment was designed to test both attitude toward music and attitude toward school activities. The measurement tool was presented in pictorial form which presented students engaged in activities such as playing a drum, kicking a ball, writing, clapping, singing, reading, and so on. The students were required to mark pictures of faces that ranged from happy, smiling faces to very sad,

disgruntled ones. Most classes participating in the project were assessed, as were an equal number of non-Schulwerk participants. Both pre and post-tests were administered.

The assessment of music attitudes and attitudes toward school-related activities resulted in variable results from grades K-6. Only the first and fourth grades receiving Orff-Schulwerk instruction showed significantly more positive attitudes toward music than did the non-Schulwerk students. As well, consistent attitudes toward school and school-related activities were held by both populations. However, it was noted that throughout the year, there was a general m[redacted]ard a less favorable attitude across several grades. The researchers speculated that these results could have been due to environmental and situational factors present at the time of assessment.

As well as monitoring creativity, the Bellflower (1968) project also scrutinized student participation. A behavioral checklist was employed to evaluate individual and social performance. At the conclusion of the (Bellflower, 1968) project, it was noted that the Schulwerk participants demonstrated an:

> . . . increased participation, expression and spontaneity . . . . Pupil behaviors that showed the biggest increase were expressive movement, development of time and space relationship, locomotor proficiency, and improvisation of concepts or activities in either verbal or motor domains. Throughout the year, approximately a 20% increase in the aforementioned behaviors was noted for children experiencing the Schulwerk activities. Other behaviors showing an

increased frequency throughout the year included freedom of movement in rhythmical activities, participation in expressive group activities such as dancing, clapping and rhythm, and creating expressive responses to verbal and musical presentation. (p. 258)

Moreover:

> In contrast, it is observed that although there were gains in certain aspects of social participation and volunteering to participate in the social situation, the increase in these behaviors was of less magnitude than the increase in the spontaneous and expressive individual behaviors. (p. 225)

Subjective analysis during the project pinpointed the following observations:

1. the approval and value given to each child's improvised contributions does much to encourage the development of self-concept
2. with each successful music-making ensemble experience being reinforced, concerns for lack of musicality dissolve
3. the encouragement of spontaneity and imagination necessitates the need for a "safe" environment where risk-taking is the order of the day. Such an environment exists only when there is a true non-authoritarian relationship between teacher and child, coupled with the unspoken agreement of co-authorship
4. by manipulating an increased field of available media, the field of self-expression becomes enriched
5. by nourishing the inborn creative compositional element of fascination with numbers, a transfer into other curricular areas is

attainable

6. through the individual contributions of each group member, a great tolerance and respect for indiviudal differences emerges
7. a greater appreciation of the total act of creating a compositional entity, through the manipulation of the many musical elements
8. developing a keener sense of solo and group sound thereby leading to refinement of aesthetic sensitivity
9. by involving the entire body in composition using gesture, movement and speech, a development of greater body awareness is intensified.

The introduction to this chapter included a discussion of the symbiotic relationship between attitude and behavior. The above observations of the Bellflower (1968) project have contributed significant insights into this important aspect of the power of the creative process, through improvisation, and its probable effect on attitude:

> For every psychologist and pedagogist it is unquestionable that much pressure would be allayed if conscious effort were made in the development of children and young people to provide opportunity for step-wise success in self-expression. A child, who is early brought into intensive activity in the Schulwerk who sings, moves, plays and ripens his powers of fantasy, will also speak better with less hesitation, and move with greater assurance and relaxation than other children and will learn a sense of thematic construction which in natural science means conceptual thinking. (p. 14)

Historically, the Bellflower (1968) project intensified the ideas

of Carl Orff in the U.S. at a point in time when greater focus was being put on the development and the effects of the creative process. The project directors were either closely associated with Carl Orff and/or had received training from Orff, whose input also closely guided the project. As well as being a longitudinal and developmental study, part of the project's intent was the distillation of Orff's ideas through demonstration classes and in-service education. Through this dissemination of the ideas of the Schulwerk, American music educators were reminded of the importance of demonstrating to children the non-utility of art, the right of imagination and invention to exist for their own sake and, finally, the emotional benefits of arriving at fulfillment through gesture rather than through product. Finally, the researchers concluded that the Bellflower (1968) project succeeded in crossing the line of demarcation as purely music education and manifested new responsibilities inherent in educating the total child. Clearly, the Bellflower (1968) project was timely not only for the developmental and longitudinal aspects of the program, but also for scrutinizing the effects of the creative process on attitudinal development.

Contrary to the results obtained by Glasgow and Hamreus (1968) and the Bellflower (1968) project, were those obtained by the Copper Country Intermediate School District (1973). The Copper Country Intermediate School District (1973) was concerned with the efficacy of a combined Orff-Kodály approach designed to evaluate the overall learning process, achievement and attitudes toward school and self in students in grades K-4. Students involved in the longitudinal study,

were enrolled in two schools comparable both in socio-economic status and location.

The most conspiciuous results were evident in student attitudes. Pupil attitudes were measured using the M-P Pupil Attitude Scale, a 22 item SCAMIN type instrument which measured attitude in four areas considered pertinent to the project: (1) perception of self and others, (2) perception of self as learner, (3) general attitude toward school, and (4) attitude toward specific curricular areas. According to the researchers, the M-P Pupil Attitude Scale has been used frequently over the past several years and has been found to discriminate satisfactorily.

The attitude measurement was presented in pictorial form and students were to mark a happy, neutral or sad face according to how they felt in a given situation. The results were reported as percentages of students choosing a smiling face as opposed to the neutral or sad face. The Orff students dominated the non-Orff students in their higher rating in the desired direction on 19 out of a possible 22 questions.

Certain ratings which reflect the Orff student's more favorable attitude can be found in the following examples.

1. "Myself now" - 84% vs. 79%
2. "Myself as a pupil" - 84% vs. 71%
3. "Being at this school next year" - 81% vs. 71%

Evidence to further substantiate the findings were reactive data drawn from the remarks of teachers participating in the study. Teachers felt that since the Orff approach appears to benefit the child

psychologically, an improved state of mental health can result. Furthermore, the results seem to indicate that the Orff students were enjoying the time spent in school more than the non-Orff students. This, the researchers suggested, is perhaps Orff-Schulwerk's "raison d'être" (Copper Country Intermediate School District, 1973, p. 26).

Evidently, the thesis that Orff-Schulwerk can promote positive attitude development appears to be substantiated, given the evidence of the Copper Country Intermediate School District (1973). The Siemens (1969) study also appears to corroborate the results presented.

Siemens (1969) compared Orff-Schulwerk and traditional music education practices with respect to music achievement, interest, attitude and feelings of success in musical activities. Fifth grade children from two elementary schools who had experienced at least one full year of Orff-Schulwerk music in their present school comprised the experimental group while fifth grade children from three similar schools comprised the control group.

The student interest questionnaire, constructed by the investigator, consisted of three parts:

> Part I was designed to measure differences in enjoyment of various types of music and various musical activities. Part II contained 7 success-feeling statements and 22 interest statements to which subjects responded if statements applied to them. Statements were both positive and negative. To obtain the scores, negative scores were subtracted from positive scores. (Siemens, 1969, p. 273)

Part III consisted of 25 attitude statements to which subjects were

to respond in five categories: strongly agree, agree, not sure, disagree, and strongly disagree:

> Scores were obtained by giving a value of 3 for a response of "strongly agree", 2 for "agree", 0 for "not sure", -2 for "disagree", and -3 for "strongly disagree." Negative statements were multiplied by -1, and all responses were added to give each subject an attitude score. (Siemens, 1969, p. 273)

An analysis of the data revealed highly significant differences in interest and attitude in favor of the Orff students, which would support the thesis that Orff instruction results in greater interest in music as well as a more favorable attitude toward music. The highest correlation was found to exist between interest and attitude. When interest, attitude and feelings of success were analyzed along with musical achievement, a highly significant correlation was found to exist. This would lend credence to the supposition that a relationship exists between interest, attitude, success-feelings and learning achievement.

Analysis of the responses to the student interest questionnaire indicated the following:

1. more experimental students chose music as a favorite school subject, which is in keeping with the results of greater interest and more favorable attitude toward music found in favor of the experimental group
2. favorite school music activities responses indicated that the Orff students favored creative dance and the playing of musical

instruments, while listening to records was favored by the control group

3. with regard to favorite music, the control group favored classical music to a greater degree than did the experimental control group. The researcher speculated that this was due, perhaps, to an emphasis placed on listening to classical music in the traditional program
4. the control group viewed rhythmic activities, singing part songs and listening to the teacher's explanations less favorably than did the Orff students
5. creative music activities were enjoyed more significantly by the Orff students. This is in keeping with the stress placed on creativity in the Orff instructional process.

Siemens (1969) noted that an important relationship existed between interest, attitudes and feelings of success, and musical learning gains. The interconnectedness between these factors, and their ultimate effect on achievement must not be forgotten. As educators become more cognizant of the interdependence between these components and their effect on cognitive achievement, we will then allow discovery to motivate musical learning. The child can then become an eager and tireless explorer in his quest for personal relevancy within the educational setting.

Instrumentation for Attitude Measurement

The M-P Pupil Attitude Scale, a SCAMIN type instrument designed to test attitude on four basic dimensions was utilized in the present

study. The four dimensions were:

1. perception of self and others
2. perception of self as learner
3. general attitude toward school
4. attitude toward specific curricular areas.

The test consisted of 21 statements. Students were to put an x on the happy face, neutral face or sad face which would best describe how they felt concerning a given statement.

The Copper Country Intermediate School District (1973) made successful use of the M-P Pupil Attitude Scale. According to the researchers, the "M-P Pupil Attitude Scales have been found to discriminate satisfactorily" (p. 8). The M-P Pupil Attitude Scale was validated for use in this study by the Educational Psychology Testing Services, University of Alberta. Appendix G contains a review of this test.

Procedures for Administering and Scoring the M-P Pupil Attitude Scale

The test was administered to each of the three classes on the same day. The examiner provided examples to demonstrate procedures for marking. Each statement was read by the examiner prior to the students marking the appropriate picture. Scores were obtained by assigning a value of "3" for a happy face response, "2" for a neutral face response, and "1" for a sad face response.

Results and Analysis of Attitude Data

The attitude data were categorized as happy face, neutral face and

sad face responses and each subgroup of data were subjected to separate statistical analyses.

The mean scores and standard deviations for happy face responses is presented in Table 5 and illustrated in Figure 6. The individual scores are presented in Appendix J. The traditional group taught by the researcher was more than six points behind the traditional group taught by the control teacher and more than five points behind the Orff group in terms of happy face responses. The SPSS-X computer program was used to conduct a one-way analysis of variance. Subsequently, the Scheffe Multiple Means Comparison Test determined that the traditional group taught by the researcher was significantly less happy than the other two groups, $F(2,47) = 9.7885$, $p < .05$. This information is summarized in Table 6.

The mean scores and standard deviations for neutral face responses is presented in Table 5 and illustrated in Figure 7. The individual scores are presented in Appendix J. The traditional group taught by the researcher was more than two points higher than the traditional group taught by the control teacher, and more than one point higher than the Orff group, in terms of feelings of neutrality. A one-way analysis of variance using the SPSS-X computer program did not detect any significant differences between groups, $F(2,47) = 1.9014$, $p > .05$. The results of the one-way analysis of variance are shown in Table 7.

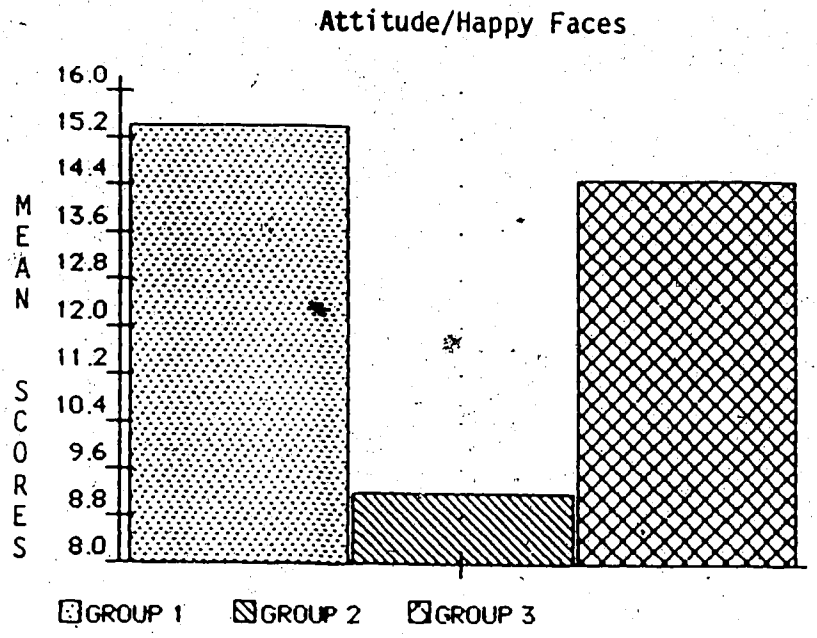
The mean scores and standard deviations for sad face responses is presented in Table 5 and illustrated in Figure 8. The individual scores are presented in Appendix J. In terms of sad face responses, the traditional group taught by the researcher was more than three

Table 5

Means and Standard Deviations for Attitude Responses

Test	Group	Mean	SD
Happy Face	1	15.41	± 3.93
	2	9.18	± 4.19
	3	14.47	± 4.81
Neutral Face	1	3.35	± 3.10
	2	5.87	± 3.73
	3	4.17	± 4.37
Sad Face	1	2.23	± 1.64
	2	5.93	± 3.53
	3	2.35	± 2.47

Note: Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.



Group 1 = traditional group taug[illegible]trol teacher.
Group 2 = traditional group taught [illegible] researcher.
Group 3 = Orff group.

Figure 6: Mean percentage scores: Happy face responses

Table 6

One-Way ANOVA: Happy Face Responses

Source	df	SS	MS	F
Between	2	367.7096	183.8548	9.7885*
Within	47	882.7904	18.7828	
Total	49	1250.5000		

* $p < .05$.

Table 7

One-Way ANOVA: Neutral Face Responses

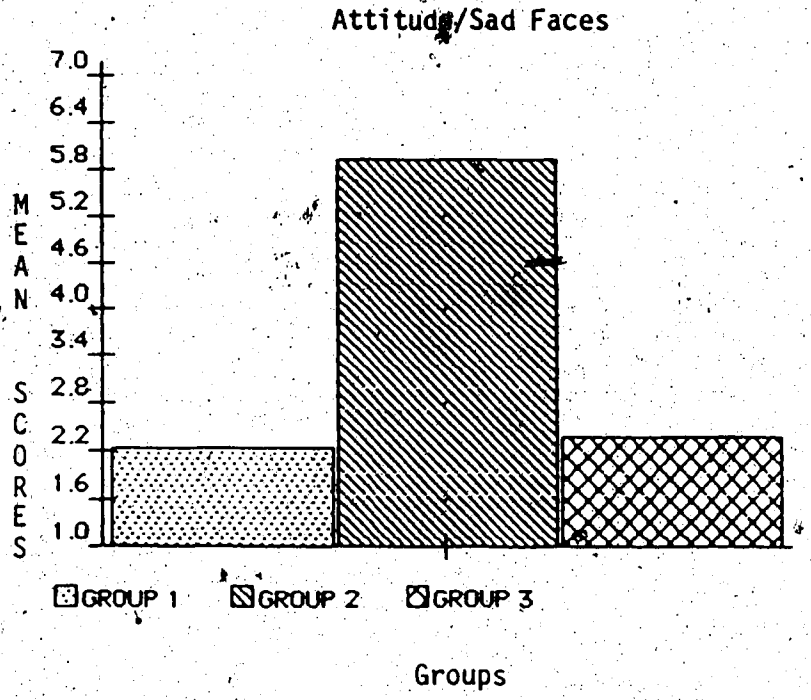
Source	df	SS	MS	F
Between	2	54.2171	27.1085	1.9014
Within	47	670.1029	14.2575	
Total	49	724.3200		

Table 8

One-Way ANOVA: Sad Face Responses

Source	df	SS	MS	F
Between	2	144.5413	72.2707	10.3597*
Within	47	327.8787	6.9761	
Total	49	472.4200		

* $p < .05$.



Group 1 = traditional group taught by control teacher.
Group 2 = tradit[illegible]aught by researcher.
Group 3 = Orff g[illegible]

Figure 8: Mean percentage scores: Sad face responses

points higher than both the traditional group taught by the control teacher and the Orff group. A one-way analysis of variance using the SPSS-X computer program and subsequent Scheffe Multiple Means Comparison Test detected significant differences between the groups. The traditional group taught by the researcher was significantly more sad than both the Orff group and the traditional group taught by the control teacher, $F(2,47) = 10.3597$, $p < .05$. A summary of this information is presented in Table 8. On an overall basis, the Orff students did not appear to be happier than the non-Orff students. Therefore, a failure to reject the null hypothesis which states: "There is no significant difference between the experimental and control groups on attitude" was necessary.

Discussion of Attitude Results

The traditional group taught by the researcher appears to have been less happy throughout the project than both the Orff group and the traditional group taught by the control teacher. Given the fact that both traditional classes employed the same materials, techniques, order and manner of presentation, the traditional class taught by the reseacher may have been influenced by unknown variables. The researcher noted that this particular group of students approached the attitude test with what appeared to be resignation rather than with the curiosity expressed by the students in the other two groups.

While this apparent difference in how the students approached the test may have been due to unknown factors present on the day of testing, it appeared that an attitude difference rather than

situational factors were more at work here. Furthermore, this apparent negative attitude which this particular class of students displayed toward the attitude test and which, apparently, influenced the results of the attitude test, was not reflected elsewhere during the study.

Statistically, there does not appear to be a relationship between the Orff approach and a shifting of pupil's attitudes in a more positive direction. However, differences in what may be termed "attitude" were nevertheless present throughout the duration of the study and were reflected in the various forms of qualitative data collected during the study. The Orff students appeared to be developing confidence, self-esteem and a more positive attitude toward self, toward music and other curricular areas, and toward school. The classroom teacher noted that the Orff students appeared to be happy and very pleased with themselves, and it was suggested that perhaps the creative process has an important effect on attitudinal development.

To summarize this section on attitude, all statistical evidence required that the researcher fail to reject the null hypothesis, as no statistical differences emerged between the Orff group and the two traditional music education groups. However, the results obtained from the attitude test do not appear to corroborate the evidence obtained from the qualitative data. Perhaps the attitude test was not sensitive enough or entirely appropriate to substantiate whether significant statistical differences were present. A further analysis and presentation of the qualitative data is presented in the concluding chapter.

CHAPTER V

MUSIC SKILLS

Research Relating Orff-Schulwerk and Music Skills

A description of the Bellflower (1968) project has been undertaken in the previous chapter of this thesis, therefore, only information pertaining to music skills involved in the Bellflower project will be discussed in this section.

Prior to testing the musical abilities of Orff and non-Orff students involved in the Bellflower (1968) study, the researchers discovered that no standardized tests were available which were appropriate in terms of content, format or test administration. As a result, a local test was devised by music specialists within the Bellfower District, to assess pupils' ability to discriminate similarity and differences in the areas of pitch, rhythm and musical passages. Total test score was taken from the number of correct responses to all sections of the test. In previous years, the test was used only as a post-test measure. In the final year of the project, it was used both as a pre- and post-test measure of music skills and was administered in kindergarten through grade 6.

The researchers concluded from the data that no significant differences were in evidence between the Orff and non-Orff groups when compared on the pre- and post-test scores. The researchers felt that while the ability to discriminate similarity and differences in the areas of pitch, rhythm and musical passages were related to the activities and the intent of the program, these musical abilities were

not the specific identities at which the program aimed. These music ability skills were not perceived as central but rather as an associated development of the Orff program.

The project directors also speculated that perhaps the variance in performance could be attributed to inadvertent characteristics included in the population sample, rather than to any particular music program. Finally, it was suggested that perhaps the musical abilities in question progress and develop in a common sequence which is dependent more upon factors of maturity rather than on the effects of a particular instructional format or environmental experience.

The Copper Country Intermediate School District (1973), as well as the Bellflower (1968) project, experienced difficulty in choosing an appropriate instrument which would be suitable for testing purposes. Upon surveying the available instruments used to test musical ability, the researchers discovered not only a paucity of instruments for young children, but the search also failed to yield a test appropriate in measuring the pertinent objectives of the project. As a result, a local test, the M-M Musicality Test, was constructed. The test was supposedly designed to measure musical ability in four areas: recognition of like musical phrases, recognition of upward or downward phrases, recognition of meter and recognition of long and short notes.

However, one of the music teachers within the district suggested that the testing device did <u>not</u> have content validity and the data generated seems to further substantiate this notion. In general, the results favored those students <u>without</u> Orff training. If one assumes equal aptitude, the Orff students were not as successful in developing

discriminating musicality as were the non-Orff students. The researchers concluded that the evidence generated from the data can in no way be used to evaluate the extent to which the musical objectives were achieved, in view of the training which Orff children received and also in view of the apparent unstructured manner in which the test was administered.

Contrary to those results achieved by the Bellflower (1968) project and the Copper Country Intermediate School District (1973) were those results obtained by Glasgow and Hamreus (1968). They proceeded with their experiment on the assumption that bodily response to rhythm and performance on the special Orff instruments would encourage the acquisition of basic music skills, resulting in a positive shift in musical performance. Musical performance was identified as: (1) the ability to reproduce rhythmic and melodic patterns of increasing length and complexity; (2) the ability to create rhythmic consequence phrases upon hearing a dictated rhythmic antecedent phrase; and (3) the ability to read simple 2, 3, 4 and 5 note melody patterns of increasing length and difficulty, such patterns incorporating only the notes of the pentatonic scale.

A criterion measure of these musical skills was developed and administered as a pre- and post-test appraisal. The pre-test was administered only after students had become acquainted with the Orff approach (i.e., basic manipulation of instruments, introductory experience in echo clapping, etc.). Pupils' responses were tape recorded and a panel of judges considered to be experts in the music field evaluated each pupil's response against specific criteria.

In order to measure rhythmic memory, students were required to echo back progressively longer and more difficult patterns dictated by the teacher. Acceptable performance was set at 30% error or less. Melodic memory was assessed by requiring the students to sing back on a neutral syllable a pattern played by the teacher on the metallophone. Initially, two note, two measure patterns were used until, eventually, the notes of C Pentatonic Scale (CDEGA) were encountered in an eight measure pattern.

The following criteria was used to verify the students ability to create an original rhythmic consequence phrase upon hearing a rhythmic antecedent phrase performed by the teacher: "(1) in the same meter (duple or triple), (2) the same duration (number of measures), and (3) a different pattern of long and short notes" (Glasgow & Hamreus, 1968, p. 12). The pupil's response was deemed acceptable only if all of the criteria were met.

The researchers discovered that with respect to growth in the ability to perform the rhythm patterns (echo clapping), the results were not conclusive as half of the total popualtion made significant gains while the other half did not. No significant growth in the ability to perform melody patterns (melodic memory) was evident. The researchers suggested that this was probably a result of using the metallophone as the instrument for this particular testing situation. Due to the percussive quality of the instrument, the children had difficulty in matching pitch. In fact, Petzold (1969) suggests that a female voice provides the best model for echoing by children.

No significant gains were made in note reading ability, and the

researchers hypothesized that this may have been due to "the limited practise time provided in translating the symbols on the staff to the correct note on the instrument" (Glasgow & Hamreus, 1968, p. 33). Further results provided evidence that significant growth was made in students' ability to create rhythmic consequence phrases. Overall test performance confirmed significant gains across all grades and the researchers concluded that Orff techniques as employed in their study were successful in improving students' musical performance.

The results of the Glasgow and Hamreus (1968) study must be viewed with caution as the testing instrument for the rhythmic question and answer portions of the study may be in question. According to the guidelines provided in Orff training sessions, question and answer technique requires that, initially, the question be four measures in length and that it does not end on a strong beat. These guidelines were not always followed, hence the validity and reliability of this test may be in doubt.

From the available research, it appears that the Glasgow and Hamreus (1968) study is the only study in which the researchers concluded that Orff training did positively affect music learning gains. The Siemens (1969) study, along with the Bellflower (1968) project and the Copper Country Intermediate School District (1973) program yielded data which would contradict the conclusions drawn by Glasgow and Hamreus (1968).

Siemens (1969) sought to reveal the differences between the Orff approach and a traditional music education approach with respect to music achievement, interest, attitude and success-feelings in musical

participation. The Orff approach had been inititiated as a pilot project three years prior to the investigation, and the traditional approach had been in use for many years. The experimental group consisted of fifth grade children, chosen from two schools employing the Orff approach. Only students experiencing at least one complete year of Orff instruction in their present school were included in the study. The control group consisted of subjects from three similar schools, using a traditional method of music instruction. The total number of subjects was 458, 233 in the experimental group and 225 in the control group. The Knuth Achievement Test in Music and the Kwalwasser-Ruch Test of Musical Accomplishment were used for testing purposes.

Siemens (1969) discovered that contrary to all expectations, the control group scored higher than did the experimental group on the Knuth Achievement Test. This test was chosen as one of the measuring instruments since it involves discriminating between pupils' sense of rhythm and pitch intervals. The investigator suggested that since the Orff instructional process stresses the attainment of these objectives, the results of the study necessitate further investigation. Furthermore, Siemens argued, if Orff students experience creative musical activities and many rhythmic exercises to a greater degree than do non-Orff students, one would expect these students to become more adept at identifying rhythms and pitch patterns played on an instrument. As a result of these findings, Siemens (1969) concluded that the Orff approach is not as successful as the traditional approach in "improving the cognitive response to rhythm and melody" (p. 277).

Siemens (1969) further concluded:

> The questions might be raised why use all the rhythm exercises which the Orff method advocates if they do not lead to improvement in recognition of rhythm patterns? A possible reply might lie in the affective domain, i.e., the enjoyment of body movement to rhythm justifies the practice in the schools. (p. 277)

The correlations of all test variables with the Knuth Achievement Test and the Kwalwasser-Ruch Total tended to be higher for the control group. Based on these findings, Siemens (1969) suggested that further study was necessary in order to determine whether the Orff approach is an uneven approach to the various phases of musical training or whether the traditional method is more uniform in its presention of knowledge and of association of melodies heard with those seen in notation.

The Copper Country Intermediate School District (1973) stated that a musical test which would be suitable for testing within the Orff program has yet to be developed. This is perhaps the most important recommendation to have emerged thus far. Little of an empirical nature has been written of the Schulwerk. Most articles which do exist are of a descriptive nature. The creation of an appropriate "Orff test" would perhaps be the harbinger of less contradictory research results. At the very least, articles concerning the Schulwerk will then not, out of necessity, be limited in scope, and researchers may present their results with added confidence. For, factual data, when used correctly, "will help evaluate and develop better music education processes and practises" (Chalmers, 1977, p. 35).

Instrumentation for Music Skills

A review of the literature suggests a lack of standardized tests relevant to the Schulwerk in terms of content or testing procedure. In fact, the Copper Country Intermediate School District (1973) suggested that an appropriate "Orff" test has yet to be developed. As a result, all studies discussed in this thesis (Bellflower Unified School District, 1968, Copper Country Intermediate School District, 1973 and Glasgow & Hamreus, 1968) save for one (Siemens, 1969) utilized locally constructed tests to measure acquisition of music skills.

Glasgow and Hamreus (1968) designed a testing instrument to measure lengthening melodic memory. The melodies were arranged so that they progressed in length and difficulty, starting with two note, two measure patterns until the entire C pentatonic scale was encountered in an eight measure pattern (see Appendix H). The children were required to sing back on a neutral syllable melodies played on the piano by the teacher.

Professors of music education in the Department of Elementary Edu[redacted]versity of Alberta assisted in conducting a search for an [redacted]asuring device. An appropriate standardized test [redacted]issues at hand was not uncovered. Furthermore, most [redacted]oned in this study made use of investigator-designed [redacted]professors of music education in the Department of [redacted]ion, University of Alberta validated, for use in this [redacted]y, the Glasgow and Hamreus (1968) test to measure lengthening melodic memory.

The melodic improvisation test was locally developed as no

available test was found to be suitable. After hearing a melodic question played on the piano by the teacher, the students were required to improvise an answer on the melody bells. See Appendix H for a review of this test.

The test was developed using the guidelines for question/answer technique as provided in Orff-Schulwerk training sessions: (1) take the same length between question and answer; (2) in the beginning, the question and answer should be four measures; (3) the answer must have a final point. It must end on the strong beat of the last measure; (4) the question and answer must contain common elements. Three music specialists reviewed the test in order to ensure that the questions followed the guidelines for question/answer technique as outlined in Orff training sessions. The music specialists determined that the test was appropriate for measuring improvisation of melodic patterns.

Procedures for Administering the Music Skills Tests

Each child was tested individually and an effort was made to standardize the testing situation by establishing the same rapport and the same degree of encouragement and positive reinforcement. A small room with a table and few distractions was used to encourage maximum student performance.

Each test item was pre-recorded on a tape recorder to ensure uniform presentation and children's responses were tape recorded to ensure accurate scoring.

Scoring Procedures for Music Skills Tests

1. Melodic Memory: A mark was obtained for each note having the

correct pitch and rhythm. The total score was calculated as the total number of marks obtained on all 17 questions.

2. Melodic Question/Answer: An answer was judged acceptable only if the following criteria were met:

   i) the answer had to be the same number of measures as the question

   ii) the answer had to have a final point. That is, it had to end on the strong beat of the last measure

   iii) the answer could not be entirely different from the question but had to contain some common elements

   iv) the answer had to be in the same meter as the question.

Failure to meet any one of the criteria resulted in the response being judged as incorrect. The total test score was derived by calculating the total number of correct responses.

Results and Data Analysis for Music Skills

The mean scores and standard deviations for lengthening melodic memory are displayed in Table 9 and illustrated in Figure 9. The mean scores were arrived at by converting the standardized scores to percentages, as in 25/50 = 50%. Therefore, the values represent mean percentage scores. The individual scores are presented in Appendix K.

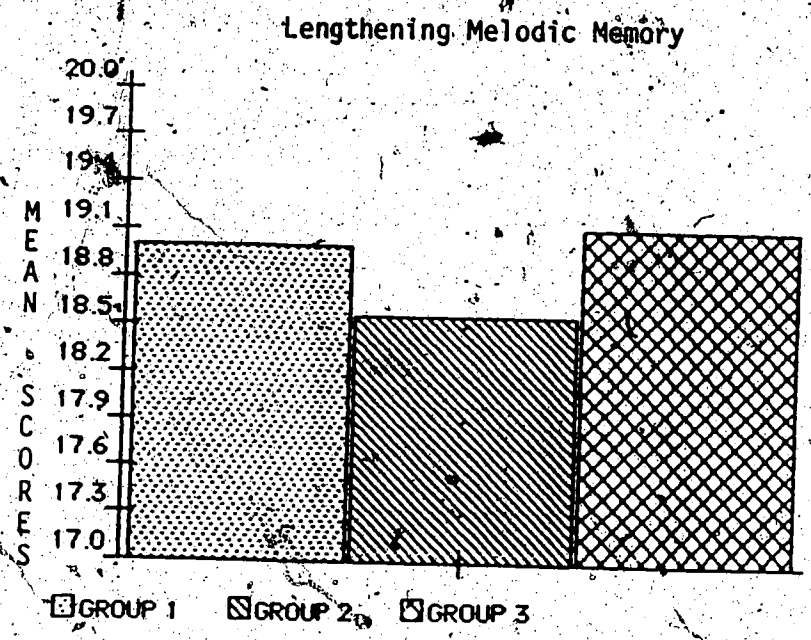
The mean scores for all groups were exceedingly low while the difference between the mean scores was, indeed, small. The traditional group taught by the researcher was lower than the Orff group by 0.55 points. This same group was 0.42 points lower than the traditional group taught by the control teacher. A one-way analysis of variance,

Table 9

Means and Standard Deviations for Music Skills Tests

Test	Group	Mean	SD
Lengthening Melodic Memory	1	19.00	± 14.92
	2	18.57	± 11.75
	3	19.12	± 13.48
Improvising Melodic Answers	1	16.00	± 12.42
	2	14.28	± 12.83
	3	16.25	± 12.04

Note: Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.



Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.

Figure 9: Mean percentage scores: Lengthening melodic memory

using the SPSS-X computer program did not determine any significant differences between groups, $F(2,42) = 0.0068$, $p > .05$. This information is summarized in Table 10. A failure to reject the null hypothesis which states: "There is no significant difference between the experimental and control groups on lengthening melodic memory" was necessary.

The mean scores and standard deviations for improvising melodic answers are displayed in Table 9 and illustrated in Figure 10.. The mean scores were arrived at by converting standardized scores to percentages, as in 25/50 = 50%, hence the values represent mean percentage scores. The individual scores are presented in Appendix K.

The mean scores for all groups were exceptionally low. The traditional group taught by the researcher was more than one point lower than the other two groups. A one-way analysis of variance using the SPSS-X computer program did not detect any significant differences between groups, $F(2,42) = 0.1078$, $p > .05$. A summary of this information is presented in Table 11. Thus, a failure to reject the null hypothesis which states: "There is no significant difference between the experimental and control groups on improvisation of melodic patterns" was warranted.

Discussion of Music Skills Test Results

From the data presented, one might conclude that music skills develop regardless of the type of music instruction employed and, perhaps these particular music skills are developmental in nature. In fact, the investigators of the Bellflower (1968) project suggested the

Table 10

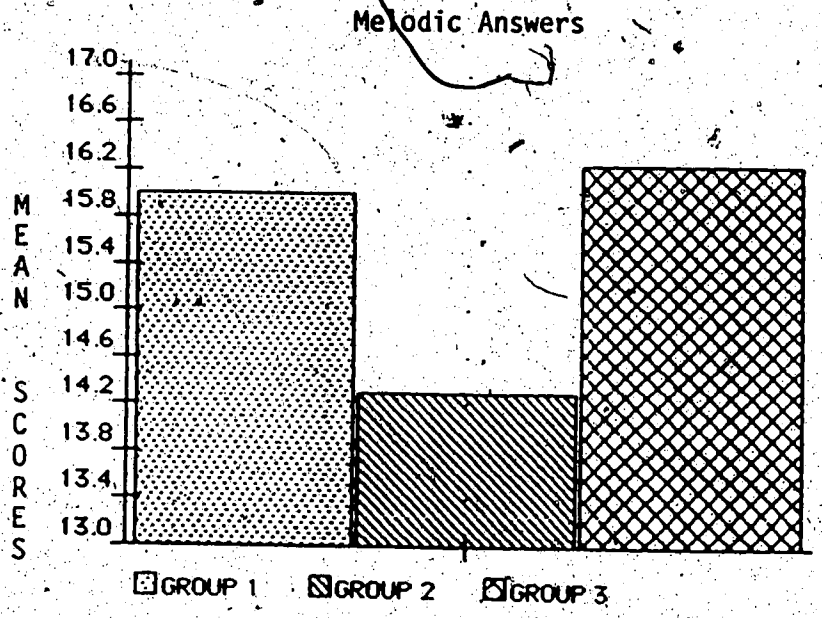
One-Way ANOVA: Lengthening Melodic Memory

Source	df	SS	MS	F
Between	2	2.4659	1.2329	.0068
Within	42	7643.1786	181.9804	
Total	44	7645.6444		

Table 11

One-Way ANOVA: Improvising Melodic Answers

Source	df	SS	MS	F
Between	2	33.2540	16.6270	.1078
Within	42	6477.8571	154.2347	
Total	44	6511.1111		



Group 1 = traditional group taught by control teacher.
Group 2 = traditional group taught by researcher.
Group 3 = Orff group.

Figure 10: Mean percentage scores: Improvising melodic answers

acquisition of music skills may be affected more by maturational factors as opposed to instructional format or environmental experiences.

The results of this study may have been affected by a training period which may not have been of sufficient length to allow differences in music skills ability to develop. As well, since Orff-Schulwerk stresses the idea of a community of musicians, perhaps testing in a one-on-one testing situation during the early stages of Orff training is entirely inappropriate. That is, while every effort was made to establish rapport with each student and to make each student feel comfortable in the testing environment, perhaps students require the ensemble experience to perform well, at least in the initial stages of Orff-Schulwerk experiences. This idea will be further explored in the conclusion of this thesis.

Perhaps the results of this study were further affected by the testing instruments in use. For example, perhaps the Glasgow and Hamreus (1968) test was too difficult for students at this stage of their Orff training. While Orff (as cited in Glasgow & Hamreus, 1968) believed that the development of one of the basic fundamentals of music is demonstrated by lengthening memory of melodic patterns, it may well be that children need to be exposed to the experience of the Schulwerk for a lengthy period of time before their melodic memory has developed to a point where they could work with eight measure melody patterns. While this may be a worthwhile goal to work toward, maturational factors may also need to be considered here. Furthermore, the results may have been affected by the fact that not all questions were four measures in length which is, according to Orff training sessions, the

most balanced structure in music. In retrospect, perhaps future researchers would be well advised to devise their own testing instrument in keeping with their particular circumstances. Finally, the results of the melodic memory test may have been affected by having each question played on the piano, rather than having each question sung. Perhaps the children would have performed better had they been able to match pitch with another voice. Research by Hermanson (1971) and Petzold (1966, 1969) would tend to support this idea.

While the statistical evidence can not support the submission that Orff-Schulwerk allows music skills ability to develop to a higher degree than does a traditional music education setting, neither can it be stated that Orff-Schulwerk does not foster the development of music skills. From the results of this study, it appears that the instructional format does not affect the developmental level of music skills. Therefore, perhaps the Bellflower (1968) researchers were correct in stating that the development of music skills may be more dependent upon maturational factors than anything else.

As well, the Bellflower (1968) researchers suggested: "the common skills of musical ability are not perceived as the central, but rather, the associated development" (p. 78). In other words, the results of this study suggest that if Orff-Schulwerk has added benefits it may well be in attitudinal enhancement rather than in skill development. The Orff students demonstrated confidence in offering their answers. As their confidence grew, they became more willing to take risks. Furthermore, their creativity grew as they became eager to expand their ideas and those of others. The researcher speculated that while these

positive attitudes toward self and others were developing, perhaps a positive attitude toward music itself would emerge. The qualitative data collected during the course of this study would tend to support this position and will be fully analyzed and discussed in the concluding chapter of this thesis.

CHAPTER VI

CONCLUSION

In the history of music education, programs and materials have been developed with the intent to integrate instrumental playing, singing, music theory, and music appreciation. In reality, however, many of these attempts have fallen short of meeting the desired goals. Rather than providing integrative experiences, all too often, the musical education of our children has resulted in exposing students to the few musical facts concerning clefs, key signatures and composers lives, while at the same time expecting students to develop musical apppreciation and asethetic sensitivity.

In most cases, the "cart" has been put before the "horse". We expect students to acquire understanding and appreciation before providing a solid foundation based on discovery. Students are expected to understand the works of the great masters without having themselves, been composers. Whatever abilities and understandings are acquired are, for the most part, accidental or due to the innate talent of children (Boras & Fishburne, 1986).

Over the years, however, music educators have also examined numerous means of providing a musical education that would totally involve the child, make use of materials appropriate to the child's developmental and interest level and that would provide ongoing musical growth in all areas concurrently while allowing creativity and aesthetic sensitivty to emerge. Orff-Schulwerk may be one such approach that can assist in achieving the desired outcomes. The

succeeding section will discuss the research findings in the areas of motor skills, music skills and attitudes.

Discussion and Conclusions: Motor Skills Data

The present study generated data which indicate that, statistically, no significant differences existed between the Orff students and the non-Orff students.

A rather surprising finding was that the Orff students did not perform as well as the non-Orff students on the locomotor subtest of the TGMD. This was perplexing since the Orff approach is very motorically oriented. The traditional group taught by the control teacher appeared to have better athletes within the group, yet the "quality" of movement exhibited by the Orff students during the creative movement sessions was by far superior. Certainly the TGMD measures performance but does not stress quality aspects of style or grace and so was not sensitive to these differences between groups.

The TGMD appears to test skills in isolation. Yet it is these same skills which the Orff students used and applied during "Storybook Day," i.e., the movement sessions. The Orff students were required to take those skills and apply them in situations whereby body movement was used in the story telling.

Both the Orff group and the traditional group taught by the control teacher received the same physical education program taught by the same physical education teacher. This teacher commented that upon the initiation of the creative dance component of the physical education program, the Orff students excelled in their movements and displayed an

enjoyment of movement that was far more exuberant than any other class in the school, K-3.

At this point it seems necessary to digress. During the course of the study, the Orff students experienced many dances which incorporated movement, music and story. The children eagerly anticipated "Storybook Day." How would the Elf and the Door Mouse resolve their dispute over who had rights to the last available mushroom as shelter from the rain? Did the King really capture the dreadful painters and throw them into the dungeon? These and other important questions simply had to be answered and explored.

However, whenever the movement sessions consisted solely of movement and music without a story, the children appeared to feel cheated out of their right to a story. "What's the story?" "Which part is the story?" "Is there a story?" were questions frequently asked. It was as though the children needed to be a part of a story in order to perform well. Indeed, the story seemed to spur the children on and to increase their motivation. Without a story, with movement for movement's sake, the children did not appear as interested. When the physical education teacher commented that the Orff students exhibited a "first-rate attitude," the researcher speculated that perhaps this positive attitude could be due, in part, to their many music-movement and story experiences. Perhaps more story integration into the music-movement experiences of the physical education program would do much to counteract or at least retard what appears to be a development of less favorable attitudes towards dance/movement as a whole.

The Orff students may have been saying, ostensibily, "The story is the thing." The relationship, if any, between music-movement with the addition of a story, and its effect upon attitude warrants further research. To come full circle in our discussion of motor skills results, it appears that what may be of significance to motor skill development is the manner in which the acquired skills are utilized, integrated and made one's own. In the future, the measurement tools must reflect the context in which motor skills are used.

Furthermore, if we accept William's (1983) statement that: "Learning does not occur in classrooms; it occurs in students' minds" (p. 194), then attitude can affect the degree to which the acquired skills are applied. In fact, the importance of attitude seems to be a unifying thread throughout this study, and will be further discussed in the music skills area.

Discussion and Conclusions: Music Skills Data

An examination of the music skills data leaves one to observe that, statistically, no significant differences existed between the Orff students and the non-Orff students in music skill development. One could conclude that the Orff-Schulwerk approach and the traditional music education approach are comparable in promoting music skill acquisition. However, several factors may have contributed to the statistical evidence.

Firstly, perhaps the training session was not of an appropriate length for differences in development of music skills to be detected. This might lead one to consider that an attempt at evaluating

"educational" benefits should not be undertaken after a period of a few weeks or a few months. In our quest for quantifiable results, we attempt to "hurry along" skill acquisition which may, in fact, be developmental in nature regardless of the type of program implemented. A longitudinal study would probably be a better approach to studying the true effects of Orff-Schulwerk compared to the more traditional approaches.

Furthermore, attitude toward skill acquisition seems to be an important consideration, as the Bellflower (1968) researchers suggest: "Skills which are important in the Orff-Schulwerk are most often given lower order of consideration than are attitudes about them. This is perhaps a necessary order to remember" (p. 78). Secondly, an important aspect of the Schulwerk experience is the community of musicians. One of the strengths of the ensemble is that the group assists an individual's growth in skills. That is, the individual who is having difficulty is assisted by the sounds produced by other individuals. For example, as one listens to the group, one is reminded of the form or where the performance is at, during any given moment. By listening to the other musicians, the individual is reminded of the rhythm to be clapped or, the individual can "catch up" if he loses his place. In the early stages of Orff-Schulwerk experiences, it is this group development of music skills that may be more important than how the individual performs, for as the abilities of the group become more secure, then individual abilities are also becoming secure. We must now question whether it is appropriate to test individuals during these early Schulwerk experiences, particularly in a one-on-one testing

situation as employed in this study. Indeed, the Copper Country Intermediate School District (1973) suggested that a true "Orff" test has yet to be developed. Furthermore, due to the integrative nature of the Schulwerk, is it possible or even desirable to isolate aspects of the Schulwerk for testing purposes? By attempting to quantify something that is so multi-faceted, are we destroying its integrity? These questions, while beyond the scope of this study, may prove to be worthwhile as a point of departure for future philosphical considerations.

Discussion and Conclusions: Attitude Data

The data analysis for test results in the attitude area indicated that the traditional group taught by the researcher was less happy than both the Orff group and the traditional group taught by the control teacher. Further, the Orff group did not perform more positively than the two traditional groups.

The poor performance of the one traditional group on the attitude test is not in keeping with observations recorded throughout the study. In fact, these students participated readily in the class activities and were quite adept at extending the ideas, and reinventing. Their classroom teacher reported that they frequently asked if it was music day and it was her opinion that the students enjoyed the activities. Perhaps these students view any test-like situations in a negative manner. Other unknown factors may very well have been present.

Given the Orff students overall performance, it was very puzzling

that, statistically, the Orff students did not perform better than the other two groups. Parental response indicated that the children enjoyed coming to school and that they were performing many of the songs and chants at home. In fact, several parents were planning to enroll their children in music lessons as a result of the children's positive attitude toward music. As one parent commented, "I don't know what you're doing at school, but keep doing it! My child loves coming to school."

While many factors may be responsible for this positive attitude, it is the belief of this researcher that the Orff experiences contributed to this positive attitude enhancement. Both the Orff students and the Orff pilot group were fortunate in that their classroom techers were willing to integrate the Orff experiences into whatever areas possible. As well, the teacher of the pilot group, being an artist, was willing to capitalize on what the Schulwerk had to offer in terms of integrating into the art area. In addition, both the pilot Orff class and the Orff class involved in the study received the services of a librarian who was also an artist and who had expertise in story telling. Between the Orff music experiences and the extension and integration of these ideas by the librarian and the classroom teachers, the ease and beauty of the integrative aspects of the Schulwerk were magnified. The children were receiving holistic experiences on all fronts which could only assist in the blossoming of a positive attitude toward school. It would seem that in no way could this overall positive attitude toward school and its many dimensions be reflected in a one-time administration of an attitude test. So much

more was happening on a daily basis than could ever be reflected in a standardized attitude questonnaire. It appears that the attitude test did little to capture the extent of the effects of the program.

Observed Benefits and Effects of Orff-Schulwerk

The Bellflower (1968) project emphasized the importance of Orff-Schulwerk to a child's overall development:

> The Orff-Schulwerk . . . is his foundation to the introduction of artistic expression in total relation to human capacity. (p. 13)

This enhancement of total human development is encouraged due to the nature of the Schulwerk in appealing to the interest of children. Furthermore, the ease with which the Schulwerk embodies the separate disciplines was manifested time and again throughout the course of this study. This section includes an account of particular themes which emerged during the course of this study, namely, development of creativity, confidence, self-esteem, trust, risk-taking and positive self-concept. This section also includes an account of particular events which can be considered representative of the type of holistic learning experiences which, it appears, Orff-Schulwerk makes possible.

The development of creativity through improvisation is the central idea to the Schulwerk and, as such, the childrens' creative energies are given an outlet whether it be through speech, movement, singing or instrumental playing. The following poem taken from Music for Children: Orff-Schulwerk, American Edition, Vol. I, 1982, p. 22 was used by the Orff class, initially for vocal and instrumental

exploration.

(has been removed due

to unavailability of

copyright permission).

The children became so enthralled with the poem and the images which it evoked that they decided to create an introduction:

Fee Fi Fo Fum
We smell something, yum yum!

and a coda:

Fee Fi Fo Fay
We won't eat so we'll
go away!

The children explored being giants through movement, after which some responded with: "Now I know what a giant sees!"

After this initial movement experience, the students developed stories describing their experiences as giants. This one activity allowed the students to be creative vocally, through movement and also in the area of creative writing.

Another activity which proved to be a delight was "Rainbow Day." Prior to the actual day, the classroom was decorated with rainbows, pots of gold and the children experienced many fairytales. The librarian played a pivotal part in the success of "Rainbow Day" as she told stories of rainbows and magic. Under her direction, the children then made rainbow cookies complete with rainbow shapes and colors.

While the smell of baking cookies wafted through the air, the researcher led the children through "The Baking Dance". What joy! What squeals of delight! As one student pronounced: "That was my best dance yet!"

Another integrative experience was initiated through the idea of the lost key. The image of a magic key turning or loosening a crank greatly assists the children in matching pitch. On this particular day, hardly any of the children needed the assistance of the magic key and the researcher commented that perhaps, one day, the key might never again be needed and so, could be locked away forever. There arose immediate alarm. "What happens if another class needs the key and it's locked away?" was the cry. The children immediately decided that the lost key could be reclaimed only if the researcher travelled on a dangerous journey through an enchanted forest, past skeletons and vampires. The classroom teacher quickly capitalized on the childrens' enthusiasm and encouraged story writing. She reported that the students were so eager to develop their stories that their printing could not keep pace with the speed with which they were generating ideas.

As the integration progressed, so, too, did the creativity develop. As the Bellflower (1968) project reported:

> Orff-Schulwerk is also more than a music method. It concerns itself with the complexities of the body, the spirit, and deepest feelings common to man. It is concerned with calling out all possible forms of fruitful communication. (p. 14)

The Schulwerk encourages the development of creativity by utilizing

materials which are at the children's interest and developmental level. These activities and materials focus on the child, not the teacher, without allowing room for passivity. Everyone wants to be involved and the children soon realize that the teacher is a guide, not a leader.

As the children realized that the situation called for ideas that were important to them, they gained confidence and self-esteem. They became more uninhibited as they began to understand that it was not important whether their answers were right or wrong but whether their answers were appropriate to the given situation. The children were experiencing a refinement of aesthetic sensitivity to the emerging "soundscape" and were becoming wise as to the most important musical decisions. As their confidence grew, the children became more willing to take risks and to become bold adventurers in their learning.

However, a relaxed atmosphere filled with trust is necessary before any risk taking can occur. It was evident, quite early in the year, that the Orff students felt this trust. These students did not feel shy at all about flinging their arms about the researcher whenever they were so moved. This climaxed the day the students were involved in the "Glue Pot Dance": gobs of glue kept trying to escape from the glue pot. At this point, the children decided that they were stuck to the researcher. As the researcher attempted to proceed down the hallway, 20 gobs of glue were determined to stick! The children had no end of fun with this idea throughout the year.

At the conclusion of the main study, the classroom teachers of the two classes which experienced traditional music requested that their

students experience Orff-Schulwerk. Therefore, the researcher introduced these students to the Schulwerk. What is of interest is that throughout their traditional music experiences, these students did not venture to make any physical contact with the researcher. However, after several Orff-Schulwerk experiences, these students began to feel very comfortable in establishing physical contact with the researcher.

Whether or not there is a relationship between childrens' experiences with the Schulwerk and the loss of their inhibitions, is debatable. However, due to the structure of the traditional classes, it "felt" as though an invisible wall existed between the teacher and the students. In most classrooms, in most subject areas, the teacher is the leader, the font of all knowledge, while the children are the receptacles of that knowledge. Not so in the Orff classroom. The students are responsible for their discoveries and the idea of co-authorship is in the forefront.

When children trust an adult, they know that their ideas count. They do not see fit to cap their fantasy but, rather, they further bring it to light. When an adult is willing to be a giant or an elf alongside the children, they will allow the adult entry into their world of fantasy. However, membership is not permanently guaranteed for, at any time, it may be revoked and children have no qualms about doing so.

The enhancement of self-esteem and confidence through risk taking in a trusting environment cannot be under estimated:

> For every psychologist and pedagogist it is unquestionable, that much repression would be allayed if conscious effort were

> made in the development of children and young people to provide opportunity for step-wise success in self-expression. (Bellflower, 1968, p. 14)

The following incident is an example of how the Schulwerk can promote the development of a positive self-concept. One day, a student, considered to be a bit of a behavior problem, created an introduction to our song. His offer to share was very surprising as this was seldom the case. This student's suggestion proved to be very successful and, at the conclusion of class, with a smile from ear to ear, this student stated proudly: "You know what? You made a song out of my story!" Further to this particular incident, the classroom teacher reported that, in general, the students appeared very pleased with themselves and it was her opinion that they exhibited what she described as "an inner peace" because they were allowed so many opportunities to express themselves.

While the children were developing this healthy self-confidence, from time to time they enjoyed gaining power over the teacher. In the dance, "Teddy Bear School," the little teddy bears decided that the teddy bear teacher would not be allowed out for recess. In their quest for independence and confidence, the children desired this momentary shift of power but were soon satisfied and desired the security of their real roles.

Our music activities became so much a part of the childrens' daily lives that they became truly annoyed if music class happened to be cancelled. In fact, one student promptly burst into tears when she discovered that the researcher would not be her music teacher the

following year. That was a first for this researcher!

Results of Interviews

The preceding section consisted of a discussion of some of the benefits and affects of Orff-Schulwerk as observed by the researcher. The following section will include student and teacher comments concerning Orff-Schulwerk.

The children. The interviews with the children did not appear to be as informative as the anecdotal records compiled throughout the course of this study. The childrens' behavior in class, as well as their uninhibited comments as disclosed in the preceding section, can be considered to be more revealing than the interview results. In this case, the adage "Actions speak louder than words" was operational. However, the interviews did confirm several ideas which seem to recur throughout the literature describing the essence of Orff-Schulwerk philosophy.

The childrens' comments seemed to verify the position that Orff-Schulwerk is, indeed, child-centered. It is music learning housed within play.

Jason: I think it's like playing.

Diana: It's like playing.

Crystal: Like playing.

Researcher: Why is it like playing?

Diana: 'Cause it's fun.

Crystal: Because we always get to do dances and acts.

Jaimie: It's like doing easy work.

What was surprising was the impact of the creative dance component. Several of the children mentioned "the acts" as being their favorite part about music class. For example, Jaimie's favorite part about music class was "acting things out."

Researcher: Like what? What did we act out?

Jaimie: Like the elfs.

Jaimie was referring to the Shoemaker and the Elves dance. Colin also preferred the creative movement.

Researcher: What do you like best about music class?

Colin: Uumm . . . . the acts.

Researcher: Which acts did you like?

Colin: The King and Queen.

Researcher: Any others?

Colin: Uumm . . . the elfs . . . The Shoemaker and the Elfs and the one where we . . . I forget what it's called.

Researcher: What were we doing?

Colin: We were making . . . we were rolling dough and we had things like plates with food on them.

What is of interest is that the students referred to the dances, or the movement, as "acting." It is very difficult to define Orff-Schulwerk in precise terms as it consists of all performing arts interwoven into a single unit. The boundaries between the arts are constantly shifting to accommodate the action at hand. As a result, what one may define as "dance," another may define as "acting." This constant spilling over into many areas at any given time, may be the most unique feature of the approach.

Many of the children indicated that they enjoyed all aspects of music class, however, some dislikes were revealed.

Jaimie: I think it's boring when we hardly get to use the instruments.

Colin: I don't like the poem stuff, I'm sure.

While many of the students enjoyed all aspects of the music program, Crystal absorbed the entire experience to the point where music class became a part of what was important to her; it became a focal point. Crystal indicated that her favorite subject was music and when asked if she ever engaged in any of the activities at home, she replied: "We make up little dances."

Researcher: Are there any parts about music class that you don't like?

Crystal: Like when I have to leave, I can't be there.

To summarize this section, two themes seemed to emerge: the play theme and the acting theme. Many of the children preferred the creative dance portion of the program, which they referred to as "acting," while a few indicated that they preferred playing the instruments. Most importantly, however, the children appeared to enjoy the activities because the activities were play-oriented. Many of the children felt that music was "like playing" because it was "fun."

The teachers. One of the main thrusts of the Orff approach appears to be its reliance on child-centered activities in order to promote musical development. This idea is ever-present in the literature and the teachers involved in this study appeared to concur with that notion.

Researcher: What are the differences that you can see between the

Orff program and a more traditional program?

Loretta: One of the main things that I noticed is the total involvement of the child. He's involved physically and mentally. In the traditional program we did an awful lot of just sitting and listening, then trying to repeat what we heard. But we really didn't do a lot of body movement or that sort of thing. It was teacher directed.

Loretta felt that the Orff approach is more self-directed:

What the teacher's doing in the Orff program is providing an idea . . . thought process . . . and then the child is allowed to go and experiment with that, and then you pull from that. I felt that in the traditional approach I was expecting a certain answer and I wasn't happy unless I got that answer.

Barb: One of the major differences that I noticed and that surprised me about the Orff program, was the total child involvement. The children were using their eyes and their ears and their bodies during the music program, as opposed to the traditional method of sitting back and listening and giving back responses.

Barb also felt that the Orff approach is more child-centered than a traditional program:

Another aspect of this program that I like, and that is different from the traditional program is that it gets away from the traditional teacher-pupil

relationship. The teacher is more involved with the children, and I think because of that, the pupils are more relaxed, because there is not the distance between the teacher and the child that you tend to see in a more traditional program. I don't see any right or wrong in this program. I think there's a chance for the children to be creative and train themselves.

The children in an Orff program are all involved, all of the time, therefore music skills are constantly being refined.

Loretta: They all have to be involved. It's really noticeable if a child is not involved. That person sticks out like a sore thumb. You can immediately zero in on whoever is not there.

Barb: Not all children are musical. It takes some children a lot longer to pick up on some of the musical skills. But this program is not an emphasis on having the skills. It has an emphasis on being yourself and seeing what you can do.

However, Barb also stated that the music skills will develop:

And yet the music skills will come out of this and the children won't even know they are doing it. They are relaxed while they are doing it. There isn't the pressure, so they aren't thinking: "Oh no! I can't do it.' There is nothing presented to them that they can't do.

Since the Orff approach does not emphasize the "right" answer,

children can develop more self-confidence. They are freer to explore what they can do within the structure of what is happening at the moment.

Barb: The children can be more creative because they are not worried about how they are going to perform. I think that is why the children enjoy it so much. Sometimes in a classroom, no matter how hard you try not to emphasize the fact that some child doesn't know, in the Orff program it's not as obvious. Although it is to the extent that some child isn't as graceful, but these children are mainly looking inward, toward themselves. There isn't that looking around to see what the other child is doing.

Both teachers suggested that the material used in an Orff program is at the child's interest level and developmental level. This is a contributing factor to the child's enjoyment of the program.

Loretta: Some of the lessons in our old course seemed dull and uninviting. We'd start a song and we'd do it that day. We did not always review it enough so that they got to know it, so it was difficult for them to go out and sing that little song. Another thing, those songs tended to be longer, more traditional songs which were harder to learn.

Barb: Well, the type of songs and poems you are using appeal more to children than some of the songs that I have seen in traditional music programs. I wouldn't ever

attempt to teach some of them to children because I find them boring. I don't think I can teach anything that I can't get excited about.

Apparently, an added benefit of an Orff program is the self-confidence which students acquire.

Loretta: I think they're less afraid to take chances. We've all been working toward making them feel comfortable in the fact that it's okay to make an error and take it on. But, definitely, in your music class, you expanded on that. You know, give me your ideas and we'll make them grow. I think in overall development, they feel good about themselves.

The Orff program influenced both teachers as regards their own teaching.

Loretta: I will try to do more movement and that sort of thing. I'm going to try to get more total involvement of the child, a little less sitting. I've used some of your little action games for math.

Barb: I think it definitely helped my teaching. Coming in at the beginning, I was unsure of myself and unsure of limits. It took me awhile but I found that I was able to relax and try some of the things in the classroom. I think it helped me to establish a better teacher-student rapport in my room.

It appears that the Orff program has benefitted not only the students in the area of self-confidence, but as Barb reported:

> I'm feeling more creative. You see, I always thought that my creativity was quite limited. I don't think I'm as non-creative as I once thought I was, because I'm finding now that when I start with some of these Orff ideas, I'm able to take them further.

In terms of changes in the teacher's overall day, Barb reported:

> Well, definite trends toward more integration. I'm finding the Orff program lends itself more to integrating in other subject areas. I come back from a music class and feel just like throwing out everything I had planned for the next two hours, and taking the idea you worked on and go from there.

The perceptions of the teachers involved in this study seem to echo the perceptions of those who are contributing to the base of research in the area of Orff-Schulwerk. In essence, the teachers in this study view Orff-Schulwerk as being:

1. an approach which requires the total involvement of the children motorically, cognitively and emotionally;
2. an approach which is child-centered. The teacher and student exist in a symbiotic relationship;
3. an approach which utilizes activities suited to the child's developmental level and interest level;
4. an approach which contributes to skill and conceptual development. All children are involved all of the time thereby refining their skills;
5. an approach which can assist children in developing feelings of

self-confidence. Since the children are involved in a "fun" way, they are more relaxed and less likely to harbor feelings of "I can't." Positive feelings of self-esteem are more likely to emerge.

Summary

The integrated nature of learning and the complex integrated functioning of the human organism makes it very difficult to fractionize learning and development. We do so simply for ease of discussion yet it is ridiculous to think that learning occurs in such a schismatic fashion.

It may be acceptable to isolate the benefits of the Schulwerk for research purposes, however its very uniqueness lies in its integrated nature. Therefore, great difficulty arises in attempting to isolate its components. The value of the Schulwerk appears to lie in its contribution to Gestalt learning.

At first glance, the Schulwerk may appear to be very simple in nature. Yet, through "play," a very high level of functioning and learning is occurring and is housed within this "play." The "play" is the thing. As one student observed: "It's fun work."

The testing instruments did not produce significant results of a statistical nature, however the measurement devices may have been at fault. Perhaps in an integrated approach to learning, when an attempt is made to isolate bits and pieces for testing purposes, the very integrity of the approach is destroyed. Perhaps Orff-Schulwerk should only be "tested" when Orff specific tests have been developed.

This study also provided important insight into childrens'

perceptions of who teachers are and what they do. One student questionned the researcher in the following manner:

Student: Were you ever a teacher?

Researcher: What do you mean?

Student: You know, a teacher.

This student's ideas of what or who a teacher is, is an important comment on our educational scene. A real teacher does not allow dancing, singing and games. As adults, we tend to become more concerned with what we teach, rather than how we teach or even who we teach. Yet the children associate the subject with the teacher. When the researcher questioned the children as to what they liked best about music, several promptly replied, "You!" When asked what he liked best about coming to school, one boy replied: "The teacher."

Researcher: What is it that you like about your teacher?

Student: Her looks.

We cannot divorce ourselves from our teaching for, we are what we teach and we will ultimately affect the child's like or dislike of a particular subject area or even education in general.

Many aspects of this study point to the positive effects of an integrated learning environment. The integration achieved in this study was possible due to the efforts of a number of personnel. As a result of this cooperative learning environment, the children displayed the development of positive attitudes toward school in general. While the attitude test did not provide statistical data to support the claim that the Schulwerk is more successful at fostering positive attitude development, neither can it be stated that the Schulwerk hampers

positive attitude development. Furthermore, the qualitative data would suggest that the Schulwerk does, indeed, contribute to attitude enhancement. This focus on attitude seemed to be a common element throughout this study and, as others have suggested, this is perhaps Orff-Schulwerk's "raison d'être." As Williams (1983) stated: "Wanting to learn something makes it more possible to learn and that efforts to make learning pleasurable have a direct and positive effect on learning efficiency." (p. 187).

Probably no researcher can step back from a study without having been affected to some degree by the study. The researcher experienced a symbiotic relationship with the students in creative development. The researcher has developed a healthy respect for the creative energy of children and, as a result, the researcher's teaching has experienced a definite freeing-up and a revitalization. The present study also allowed the researcher an opportunity to <u>listen</u> to children. Their insight is nothing short of remarkable. Finally, this project has allowed the researcher to rediscover her own teaching and to examine not only the <u>what</u> of teaching but the <u>how</u>, the <u>why</u>, and most importantly, the <u>who</u> of teaching.

Recommendations

The results of this study suggest specific questions which would be worthwhile persuing.

1. What differences in attitude exist between students experiencing a movement-music-story program and those students experiencing a movement-music program? If apparent differences exist are these

differences of a short or long term nature? Research in this area would enrich the movement component of the fine arts area, as well as enriching the physical education area.

2. If students have experienced Orff-Schulwerk from K-6, would they be ahead of their counterparts in their musical development?
3. If students have experienced Orff-Schulerk from K-6, what percentage of these students continue their musical education in junior and senior high school?
4. If students have experienced a truly integrative Orff-Shulwerk program, from K-6, what academic benefits have surfaced?
5. Since Orff-Schulwerk is motorically oriented and allows the children to experience abstract musical concepts through motor response prior to being presented with the symbolic stimuli, is there an increase in abstract reasoning ability?
6. Finally, this study has verified the need for the development of testing instruments sensitive to the Orff-Shulwerk experience.

Coda

In a sense, this study has come full circle. In attempting to answer the research questions, it became apparent that many more questions needed to be raised. In an effort to pinpoint the Schulwerk, its chameleon-like essence soon became apparent.

While this study could not affirmatively answer the research questions, much more was discovered than anticipated: children have the power of changing our schooling if we would but listen. One child did the researcher the honor of announcing: "Coming in here is like

coming into a magic land." If we can capitalize on this type of attitude to encourage motivation toward learning, then we will have given the greatest gift of all - the keys to the door marked [illegible] education."

Our position as educators is tenuous at best. The child [illegible] true teachers. The next time a child queries: "I wonder what it's like to be a magic sparkle in the magic sparkle jar?", what direction will we take? As Williams (1983) stated:

> Children come to school as integrated people with thoughts and feelings, words and pictures, ideas and fantasies. They are intensely curious about the world. They are scientists, artists, musicians, historians, dancers and runners, tellers of stories, and mathematicians. The challenge we face as teachers is to use the wealth they bring us. (p. 189)

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APPENDIX A (pp. 133-135)

Sample Traditional Music Education Activities taken from Exploring Music, (1975), Book 1, Holt, Rinehart & Winston has been removed due to unavailability of copyright permission.

APPENDIX B (pp. 137-140)

Sample Orff-Schulwerk Activities taken from Music for Children: Orff-Schulwerk American Edition, Vol. 1, (1982) has been removed due to unavailability of copyright permission.

APPENDIX C (pp. 142-143)

Sample Creative Dance Activities taken from Boorman, J. (1982). Creative dance for children: A resource component of creative dance for teachers of children aged 4 to 8 years. Edmonton: University of Alberta, has been removed due to unavailability of copyright permission.

APPENDIX D

Orff-Schulwerk Resources

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APPENDIX E

Creative Dance Resources

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APPENDIX F (pp. 150-156)

Test of Gross Motor Development taken from Ulrich, D. (1985). Austin, TX: Pro-Ed., has been removed due to unavailability of copyright permission.

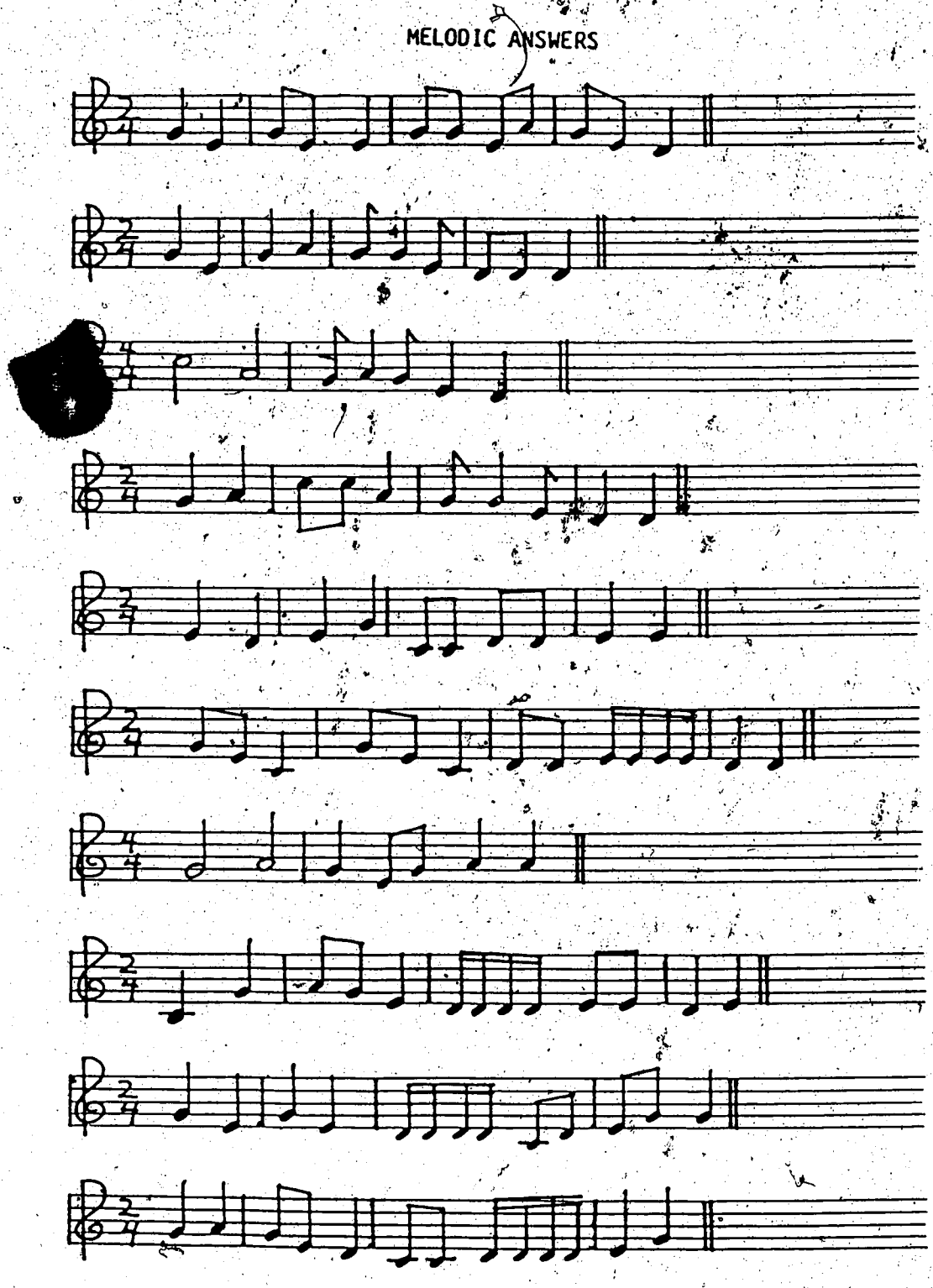
APPENDIX G (pp. 158-159)

M-P Pupil Attitude Scale as employed by Copper Country Intermediate School District (1973) has been removed due to unavailability of copyright permission.

APPENDIX H (pp. 161-162)

Music Skills Tests. Test of Lengthening Melodic Memory as employed by Glasgow & Hamreus (1968) has been removed due to unavailability of copyright permission.

MELODIC ANSWERS



APPENDIX I

Raw Scores for Test of Gross Motor Development

Table I-1

Raw Scores for TGMD: Group 1

Subject	Object Control	Locomotor	Total Score
1	79	77	78
2	100	77	87
3	79	100	91
4	53	77	67
5	63	88	78
6	74	85	80
7	74	81	78
8	58	92	78
9	84	96	91
10	68	88	80
11	74	88	82
12	79	77	78
13	68	96	84
14	100	77	87
15	79	88	84
16	-[a]	-	-
17	-[a]	-	-

Note: Group 1 = traditional group taught by control teacher. The values represent percentages.

a Students absent on day of testing.

Table I-2

Raw Scores for TGMD: Group 2

Subject	Object Control	Locomotor	Total Score
1	58	73	67
2	74	77	76
3	53	81	69
4	79	85	82
5	47	69	60
6	53	88	73
7	42	73	60
8	42	92	71
9	68	85	78
10	68	88	80
11	84	85	84
12	58	81	71
13	53	69	62
14	89	88	89
15	_[a]	-	-
16	_[a]	-	-
17	_[a]	-	-

Note: Group 2 = traditional group taught by researcher. The values represent percentages.

a Students absent on day of testing.

Table I-3

Raw Scores for TGMD: Group 3

Subject	Object Control	Locomotor	Total Score
1	53	65	60
2	74	81	78
3	89	81	84
4	79	77	78
5	79	73	76
6	32	73	56
7	74	85	80
8	95	81	87
9	58	77	69
10	84	85	84
11	47	50	48
12	74	81	78
13	89	77	82
14	79	77	78
15	58	77	69
16	74	77	76
17	89	81	84
18	95	77	84

Note: Group 3 = Orff group. The values represent percentages.

APPENDIX J

Raw Scores for M-P Pupil Attitude Scale

Table J-1

Raw Scores for M-P Pupil Attitude Scale: Group 1

Subject	Response		
	Happy	Neutral	Sad
1	60	0	1
2	51	2	3
3	30	14	4
4	60	0	1
5	45	10	1
6	42	12	1
7	45	2	5
8	51	6	1
9	39	12	2
10	51	2	3
11	57	2	1
12	36	16	1
13	30	14	4
14	60	0	1
15	57	0	2
16	51	6	1
17	21	16	6

Note: Group 1 = traditional group taught by control teacher.

Table J-2

Raw Scores for M-P Pupil Attitude Scale: Group 2

Subject	Response		
	Happy	Neutral	Sad
1	18	6	12
2	21	8	10
3	24	4	11
4	42	12	1
5	33	4	8
6	27	16	4
7	30	16	3
8	-[a]	-	-
9	18	18	6
10	57	2	1
11	12	16	9
12	36	4	7
13	45	8	2
14	24	14	6
15	15	20	6
16	27	10	7
17	12	30	2

Note: Group 2 = traditional group taught by researcher.
[a] Student absent on day of testing.

Table J-3

Raw Scores for M-P Pupil Attitude Scale: Group 3

Subject	Response		
	Happy	Neutral	Sad
1	45	10	1
2	42	10	2
3	60	0	1
4	60	0	1
5	60	0	1
6	33	14	3
7	48	6	2
8	54	2	2
9	33	16	2
10	33	10	5
11	45	10	1
12	-[a]	-	-
13	60	0	1
14	21	24	2
15	[illegible]	2	1
16	15	30	1
17	27	2	11
18	45	6	3

Note: Group 3 = Orff group.
[a] Student absent on day of testing.

APPENDIX K

Raw Scores for Music Skills Test

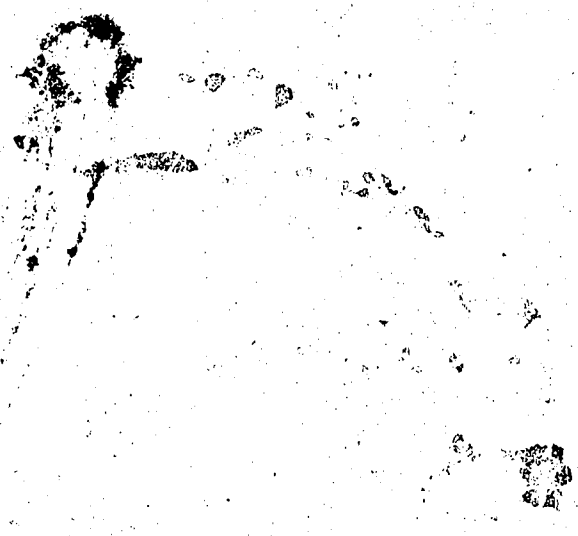


Table K-1

Raw Scores for Music Skills Tests: Group 1

Subject	Lengthening Melodic Memory	Melodic Answers
1	2	20
2	31	20
3	32	30
4	39	10
5	4	0
6	2	30
7	17	10
8	27	20
9	0	0
10	8	0
11	21	30
12	0	10
13	31	10
14	36	40
15	35	10
16	a	-
17	a	-

Note: Group 1 = traditional group taught by control teacher. The values represent percentages.

a Students absent on day of testing.

Table K-2

Raw Scores for Music Skills Tests: Group 2

Subject	Lengthening Melodic Memory	Melodic Answers
1	4	30
2	15	0
3	39	10
4	14	10
5	29	30
6	23	40
7	11	10
8	3	10
9	11	0
10	31	10
11	29	10
12	32	10
13	5	30
14	14	0
15	-[a]	-
16	-[a]	-
17	-[a]	-

Note: Group 2 = traditional group taught by researcher. The values represent percentages.

[a] Students absent on day of testing.

Table K-3

Raw Scores for Music Skills Tests: Group 3

Subject	Lengthening Melodic Memory	Melodic Answers
1	11	10
2	16	10
3	33	0
4	28	20
5	-[a]	-
6	18	20
7	20	10
8	3	0
9	35	20
10	0	40
11	23	30
12	-[a]	-
13	13	30
14	22	10
15	3	0
16	31	10
17	47	30
18	3	20

Note: Group 3 = Orff group. The values represent percentages.

a Students absent on day of testing.

APPENDIX L

Glossary of Orff-Schulwerk Terms

Glossary of Orff-Schulwerk Terms

For the purpose of clarification, the following definitions were established for use in this study:

1. Sound gestures: The separate or combined actions of finger snapping, hand clapping, thigh slapping, foot stamping.

2. Patschen, patsching: Slapping the thighs with one or both hands in a relaxed and bouncing way. It is used in rhythmic exercises and for the preparation of instrumental playing.

3. Non-pitched percussion: Small percussion instruments that have no definite pitch (claves, woodblock, tambourine, hand drum, rattle, sleigh bells, cymbols, etc.).

The above definitions were taken from Music for Children: Orff-Schulwerk American Edition, Vol. 1, 1982, p. iv. See Appendix D.

4. Pitched percussion: Barred instruments including xylophones with wooden bars set on resonating boxes, glockenspiels with metal bars, and metallophones with thicker metal bars to produce more resonance and a deeper tone color.

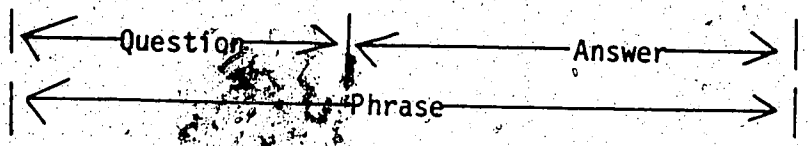
   Because of the design and construction of the barred instruments, technical demands of playing are very limited and there are no problems with regard to tuning. When it is necessary to add or remove bars for a particular tonality the manipulation can be done easily by children. The instruments also lend themselves readily to the task of reading and writing music: letter names of the notes appear on each bar adding visual reinforcement to the concept of pitch understanding. Playing the instruments can help in the development of hand and eye co-ordination: two mallets are used at all times for both melody and accompaniment figures, intervals are seen and experienced by touch and sound simultaneously. Almost all musical ideas are possible with the instruments including the creation of atmosphere for stories and dramatic forms, as well as the expression of feelings. (Music for Children: Orff-Schulwerk American Edition, Vol. 2, 1977, pp. 208-209). See Appendix D.

5. Speech-rhythms, speech-patterns: Through speech-patterns, the various types of measure are easily grasped, even up-beats, or sudden changes of time signature, present no difficulties. It is important to develop a feeling for the tonal qualities of words, so that the characteristic sounds are displayed to the best advantage . . . . Monotony should be avoided; the speech should be vibrant at all times, and dynamically varied. Dynamics and phrasing (piano and forte, crescendo and descrescendo, legato and staccato, accented and unaccented beats) should also be taken into consideration. (Orff-Schulwerk Music for Children, Vol. 1, 1956, p. 66). See Appendix D.

6. Echo-clapping: This rhythmical exercise must be started right at the beginning together with speech-patterns. The use of the hollow or the flat of the hand helps to vary the tone-quality. Echo-clapping develops into echo-playing . . . . (Orff-Schulwerk Music for Children, Vol. 1, 1956, p. 80). See Appendix D.

7. Question and Answer: This activity is also called phrase completion or phrase building . . . . It follows along after the children are proficient in performing echoes.

In echoes, one person performs the first part of the phrase, the rest copy exactly what he has done. In Question and Answer, the second half is completely different. The first person "asks" a question and the second person completes it with his own pattern ("answer").



In contrast to echoes, there are many different answers that could be given and all of them would be correct. (Music for Fun, Music for Learning, 1974, p. 178). See Appendix D.

Question and Answer can be explored using speech patterns, movement, body percussion (snapping, clapping, patschen, stamping), singing, non-pitched percussion and pitched percussion.

This technique leads to the creation of little melodies. Later on a child can make up both the Question and the Answer on one instrument while another child makes up a different Question and Answer on his melodic instrument. Several of these can be joined to create a piece of music. If several of the Questions and Answers are played in sequence, accompanied very simply by other instruments, and an introduction and ending devised, the result is an attractive small composition, of the child's own creation. (Music for Fun, Music for Learning, 1974, p. 181). See Appendix D.

8. Pentatonic Scale: A five tone scale which does not contain semitones. This is doh, ray, me, soh, la in solfa or 1, 2, 3, 5, 6 of the scale. (Music for Fun, Music for Learning, 1974, p. 217). See Appendix D.

9. Improvisation: Inventing or creating spontaneously. (Sing About Sunshine, 1975, p. 24). See Appendix D.