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ABSTRACT

This action research project developed and implemented a program to improve student motivation through use of multiple intelligences, authentic assessment, technology and positive teacher feedback to increase levels of student music achievement. The students of the targeted seventh grade music class exhibited low levels of motivation that hindered achievement within their music class. Evidence for the existence of the problem included quarterly music assessment scores that indicated student achievement and effort, a student music survey, an observation checklist, and student music portfolios that contained reflective learning journals. Probable causes for low levels of student motivation were identified through a literature review and an analysis of the setting. Four categories of probable causes were cited: student-based music and non-music-based factors, and family and school-based factors. The solution strategy involved a review of current educational literature, which resulted in selection of four major categories of intervention: music instruction within the multiple intelligences; instruction through the use of technology; student self assessment through authentic assessment strategies; and positive teacher-to-student feedback. Post-intervention data indicated increased student motivation and music interest resulting in increased levels of student music achievement. All four strategies were found effective because of the interdependent nature set forth in the construction of the intervention strategy. Includes 5 tables, 4 figures, and multiple graph figures. Contains 47 references and 38 appendices. (BT)

INCREASING STUDENT MUSIC ACHIEVEMENT THROUGH THE USE OF MOTIVATIONAL STRATEGIES

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Requirements for the Degree of Master of Arts in Teaching and Leadership

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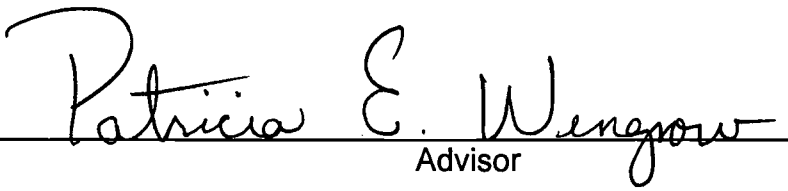

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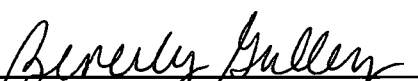

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ABSTRACT

This report describes a program for improving student motivation through use of multiple intelligences, authentic assessment, technology and positive teacher feedback to increase levels of student music achievement. The students of the targeted seventh grade music class exhibited low levels of motivation that hindered achievement within their music class. Evidence for the existence of the problem included quarterly music assessment scores that indicated student achievement and effort, a student music survey, an observation checklist, and student music portfolios that contained reflective learning journals.

Probable causes for low levels of student motivation were identified through a review of the literature and analysis of the setting. Four categories of probable causes had been cited: student-based music and non-music based factors, and family and school-based factors. Student-based music factors included: biased and set personal music preferences, lack of development and confidence in personal non-instrumental skill, and lack of desire to pursue music instrumental playing and develop instrument music skills. Student-based non-music factors included: low student self-esteem, disillusionment, boredom and negative social and peer influences. Dysfunctional family units, lack of parental relationships and support, poverty, poor medical care and nutrition, etc. were found as probable family-based factors. Educational school-based factors reflected a lack of individualized and modified student instruction, normative standards, teacher prejudice and high teacher control, and low level uniform assignments with very minimal extrinsic and intrinsic reward.

The solution strategy involved a review of current educational literature, which resulted in the selection of four major categories of intervention: music instruction within the multiple intelligences; instruction through the use of technology; student self-assessment through authentic assessment strategies; and positive teacher-to-student feedback.

Post intervention data indicated an increase in students' motivation and music interest resulting in increased levels of student music achievement. All four strategies were found effective because of the interdependent nature set forth in the construction of the intervention strategy.

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CHAPTER I

PROBLEM STATEMENT AND CONTEXT

General Statement of the problem

The students of the targeted seventh grade music class exhibited low levels of motivation and interest that hindered achievement within their music class. Evidence for the existence of the problem included student music portfolios that contained reflective journals and logs, an observation checklist and quarterly music assessment scores that indicated student achievement, effort and participation.

Immediate Problem Context

Information regarding this targeted school site is from the 1998-99 school report card. The total enrollment of this pre-kindergarten through eighth grade magnet school site consisted of five hundred fifty students. The racial/ethnic background of the total student body was 52.2 percent Black, 37.6 percent White, 7.3 percent Hispanic, 2.5 percent Asian/Pacific Islander, and 0.4 percent Native American.

Within the instructional setting, a sampling of the average class sizes indicated: kindergarten, 21.7 pupils; first grade, 18.0 pupils; third grade, 24.5 pupils; sixth grade, 20.0 pupils; and eighth grade, 17.3 pupils. There was a full-time early-childhood program that focused on at-risk students. Low income students totaled 40.2 percent of the population. These students' families received either public aid, lived in institutions for neglected or delinquent

children, were supported in foster homes with public funds, or eligible to receive free or reduced lunches. The school's attendance rate was 93.4 percent. The rate of student mobility was 11.5 percent (an expressed number of students who have enrolled in or who have left the school during the school year), and the chronic rate of student truancy was 9.1 percent (46 truants). Students who were limited in English proficiency totaled 3.6 percent (1998-1999 School Report Card).

This magnet school combined its elementary and middle school programs within one facility. The school facility was solely built to house a former middle school program around 1940. A two-story wing was added around 1950. Additional classrooms were accommodated in the garden level of both building sections. The facility included a large gymnasium, an unused swimming pool, a large auditorium for musical and theatrical performances, and a large school cafeteria. It was in generally good condition and adequately maintained. The school's surrounding neighborhood consisted of both single and multi-family dwellings that belonged to, or were rented by lower/middle-income families. Most of the neighborhood apartment dwellings and single-family homes were maintained, but some were found in deteriorated condition.

The focus of this school's program was communication. The fine arts and technology were used as tools to help build student skills that enhance self-esteem and confidence in oral, written, interpersonal and intercultural communication. Effective communication with positive eye contact, speaking in complete sentences, a positive attitude with conflict resolution skills and personal appearance was strongly emphasized. There was not a lottery system or entrance qualifying exam to enter this school. Students were enrolled by a "first-come-first-serve" basis and were enrolled regardless of students' specific talents or academic skills. This school was developed as a result of a remedial court order stemming from the community's desegregation

lawsuit.

Within the communication concept, computers were used in the development of reading, writing, speaking and listening skills. In the future these acquired skills will have hopefully contributed to the students' careers and life-styles. The district's standard curriculum was stressed and in addition presented through the fine arts (visual art, music, drama) and technology (Viscom Television Lab and computers). The fine arts and technology were integrated throughout classroom lessons. The "Communication Revue" was a student-produced program which showcased every quarter the student/class achievements to parents and school. The sixth through eighth grades produced a daily newscast just like professionals for the school to view. Utilizing both television and computer labs, the students wrote, developed, and directed their own dialogues which enhanced their classrooms' units of study. Seventh and eighth graders worked in teams, writing and producing long programs with sophisticated editing equipment which helped them to edit their own CD-ROM with original audio, video, and graphics.

The music department had two music teachers that taught the district's standard music curriculum apart from or at times integrated with the Music in Education Keyboard Lab with its own packaged curriculum created by the Yamaha Corporation and the new SoundTree Music and Technology lab created by the Korg Corporation which was recently purchased and implemented in the 1999 school year. Most grade level classes at this site experienced music classes three times a week with 40 minutes per class session. The exceptions were that the fifth and sixth grades experienced music once a week at 40 minutes per session and the seventh and eighth grades experienced music three times a week but only during every other quarter.

This site offered special education services. There were two class sections of special education students in which the first class was a 4th, 5th and 6th grade split and the second class

The Surrounding Community

The district covered about 170 square miles and served over 27,000 students. A student assignment method program, known as Controlled Choice, offered new enrolling students of kindergarten, sixth and ninth grades an opportunity to enroll in a school from a choice of three different city zones. The choices were that of the west, northeast, and southeast parts of the city. The number of schools within the district was categorized as follows: four high schools, one adult education center, six middle schools and combined, forty-one elementary schools of kindergarten through fifth grade and kindergarten through eighth grade magnet schools.

This district, as specified before, was under a Federal Court Order to desegregate its schools. To remedy the areas of disparity, a Comprehensive Remedial Court Order (CRO) was implemented. The Department of Desegregation implemented the court order student assignment remedies. In an effort to eradicate racial discrimination against minority students (defined by the Court Order as African-American and Hispanic students) equitable educational programs and opportunities for all district students were the directive. In 1994, U.S. Judge Stanley J. Roszkowski cited the district as being guilty on eleven counts of willful discrimination including: 1) student tracking and ability grouping; 2) within school segregation; 3) student assignment; 4) faculty and equipment disparity; 5) employment disparities; 6) staff assignment; 7) transportation; 8) extracurricular activities; 9) bilingual education; 10) special education; and 11) composition of the Board of Education (1999-2000 District Profile Internet Home Page, Strategic Plan). Presently there have been major strides to remedy the disparities.

The school district's finances, which were funded by the local city and state tax monies, were comparable to the state average of other large Unit Districts. The total district's school tax rate was $6.46 per $100.00 as compared to other state districts of $4.36 per $100.00. The

instructional expenditure per district pupil was $4,606.00 as compared to other state districts of $4,066.00 per pupil. The operating expenditure per district pupil was $7,957.00 as compared to other state districts of $6,621.00 per pupil.

In a larger context, this school site is located in a historically noted part of the city which was founded by Swedish and Italian immigrants who helped give birth to this manufacturing town. Manufacturing, textiles and industrial goods became the sole reason this city became the state's second largest manufacturing hub. Machine tools, fasteners and furniture were three principal industries. As this city grew, it attracted more immigrants and became the state's second largest city with a population of 139,426. Furthermore, a shift has taken place from the city's past of skilled manufacturing work to lower–paying jobs of the service-oriented type occupations and also to that of a growing group of professional employees.

The total employment rate for ages 16 and above was 65,168 (46.7 percent). The white collar employment rate was 36,554 (56.1 percent) and the blue collar employment was 28,614 (43.9 percent). The occupational workforce was broken down into five major occupations which include: 1) administrative support/clerical, 16.1percent; 2) professional specialty, 13.3 percent; 3) sales, 11.7 percent; 4) executive/administrative, 11.6 percent; and 5) precision/craft/repair, 11.6 percent. Additional workforce data shows: 1) manufacturing durables, 26.1 percent; 2) retail/trade; 17.0 percent; 3) health services, 9.1 percent; 4) Educational Services, 6.5 percent; and 5) Aerospace, 5.9 percent. The city's average household income was $35,463.00. The number of families in poverty in 1990 was 3,862 at 10.5 percent (1990 Census). The census further revealed individuals within the personal poverty level at 18,127, being 13.0 percent of the total individual population. Overall, thirteen percent of the city's population was at the poverty level. At the poverty level, the number of male heads of households with no wives was 133 (3.4

percent) and the number of female heads of households with no husbands was 1,711 (44.3 percent). In 1997 (within the county), there was a total divorce rate of 48.7 percent and a total number of teen births at 562 reflecting 30.5 percent Black, 20.4 percent Hispanic, and 12.1 percent White.

Waves of change in housing have occurred within the inner-city neighborhoods. The result of constant, transient movement of families to relocate elsewhere was due to positive or negative changes in personal income challenges that have created great upheavals within the city neighborhoods. Larger minority groups were centrally located in the near-downtown area and spread mostly to the west and southwest areas. Factions of various minority ethnic groups that once clumped in self-contained neighborhoods, have expanded and continue to move outside their neighborhoods and into other community neighborhoods within the city. The competition among minority groups for fewer available jobs became challenging for most minority families. More lower-middle income families moved into areas of the immediate near-east, northeast, southeast and northwest areas where there was a chance for more desirable work opportunities and up-scale neighborhood living.

All city taxpayers, especially those of the further north, northeast and southeast neighborhoods continued to experience higher tax rates due to the district's implemented Comprehensive Remedial Court Order. The residual higher tax rates and the unrest of community social issues related to the CRO remedies have continued to pressure upper-income families to relocate into surrounding smaller suburban-like communities. Businesses of small and large regional and national chain-type corporate offices boomed on the far-east and northeast areas of the expanding community. The construction of new homes continued to widely and rapidly spread into most outlying areas of the city, especially to the entire far-east-side areas.

Furthermore, the district's city schools are experiencing lower numbers of new student enrollees each school year. Unfortunately, the underlying social issues of the city's communities will ultimately have a profound continued changing effect on the overall city demographics and the city's ability to collect local maximum tax revenues for the financing of its school district.

National Context

According to Rudgers (1996), aesthetic education requires students to focus on their ability to experience music with their emotions, intellect, and attention with full energy and self-motivation . Student guidance is crucial. "It requires teachers and students to consider music from both an informational and an inspirational perspective – to understand music firsthand and to study music in order to live more meaningful lives" (p. 35).

In a study that investigated reasons and attributions for high levels of student music achievement, Davidson, Howe, and Sloboda (1995), described student profiles of successful music instrumentalists as students who are competent and self-motivated. "It is clearly of key importance to educationalists to understand why so few persist and to determine the environmental high factors that encourage levels of persistence" (p. 40).

One of the first things to consider is that what motivates one person doesn't necessarily motivate all people. There are, however, some general considerations that make a difference in student motivation and moving out students to action. One of the first things we must be aware of is the fine line between motivation and manipulation. Teachers must look at the reasons for their actions and their reasons for motivating the students. Another important point to remember is that motivation for the sake of motivation is a road to nowhere (Fant, 1995).

In a study that examined the effects of an alternative learning program and its impact on student motivation and self-esteem in a large urban school district in the Midwest, the dependent

variables of interest were student motivation, goal orientation, efficacy, and self-esteem. The development and promotion of alternative education programs have grown in recent years as a result of the search for alternative solutions to address student misbehavior, as well as an attempt to provide environments and a curriculum that meet the needs of at-risk students (Nichols and Utesch, 1998).

Shwu-Yong Huang and Hersholt Waxman (1996), of the University of Houston reported that one of the greatest challenges in education is addressing the large number of students who could be considered at-risk of failure. Resilient students showed significantly higher social self-concepts and motivation than nonresilient students within their classroom instructional learning environments.

In view of student motivation and regard to expanding students' musical intelligence (Colwell and Davidson, 1996), education has a greater impact on one's musical perception than what is generally believed, and we should expand instruction to include a wider range of musical experiences. Many schools respond by focusing their instructional efforts on those students who were not advantaged through private lessons or musical experiences in the community, thus boring the students with the most interest and talent and not reaching the uninterested with traditional programs. Music ensembles can promote the goals of self-motivation, empathy, and self-awareness, reducing dropouts, violence, and the negatives that arise from boredom and a lack of positive peer interaction.

Meece and Miller (1997), cited low student motivation in language arts education and discussed the need for today's teachers to intervene, guide, and motivate students to self enhancement. A lack of ego-goal orientation within student motivation is what hinders students' growth in understanding, skill competence, and self-confidence. The focus on high task mastery

goals should be set for students in their lack of individual goal setting.

In a discussion on student motivation and Attribution theory, Vadiya (1999), cited students' low self-image and learning disabilities to academic failure and how it harms today's student learning. A student's self-perception of success can be directly connected to their own dealings of past learning experiences and perceived abilities.

In regard to the national concern for low student motivation, it appears that music teachers must start with the smallest spark of the student's own natural sense of curiosity and desire for music. In essence, it seems imperative that the need for investigation in the solution of low student motivation and interest is worthy for further research. Music educators will need greater understanding in the causes and strategies of student motivation that are grounded in clear and specific means that utilize many engaging and positive music experiences that further develop new future interests in the students' music learning.

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

Initial, preliminary data of the targeted seventh grade music class was sought in effort to probe for problem evidence of the seventh grade music students' low levels of motivation and music achievement. Quarterly music assessment scores, a preliminary student music survey, a teacher observation checklist on student participation and effort, and student reflective learning journal entries were tools used in the data gathering process for problem evidence.

Data collected was from that of fourteen music students. Two different music instructors' (one who is the researcher of this project) record books were the source for quarterly music assessment scores. Music assessment scores for Spring 2000 are listed in Table 1.

Quarterly assessment grades revealed a majority lead of 57.14 percent in the "B" to "C" grade category in music achievement and a moderately large minority of 35.72 percent in the "D to F" category. Excellent achievement scores were not earned, but 7.14 percent did receive an excellent rating in the "effort" grade category. Though there was not a normal bell-curve distribution of achievement scores, scores revealed a marginal majority of average to above average achievement.

Effort assessment scores identically revealed 35.17 percent in the "D" to "F" category as also with that of achievement scores. A moderate majority of 64.28 percent earned "good" to "very good" ratings in the "effort" category, but 0.00 percent of students did not receive an excellent rating in the "effort" category.

In a comparison with the achievement and effort scores, there was a similarity within the data. Both achievement and effort scores indicated 64.28 percent within the "A" to "C" grade

Table 1

Previous Quarterly Music Assessment Scores, Spring 2000

Ratings	Grades	Achievement	Effort
Excellent	A	7.14%	0.00%
Very Good	B	35.71%	21.43%
Good	C	21.43%	42.85%
Fair	D	21.43%	21.43%
Unsatisfactory	F	14.29%	14.29%

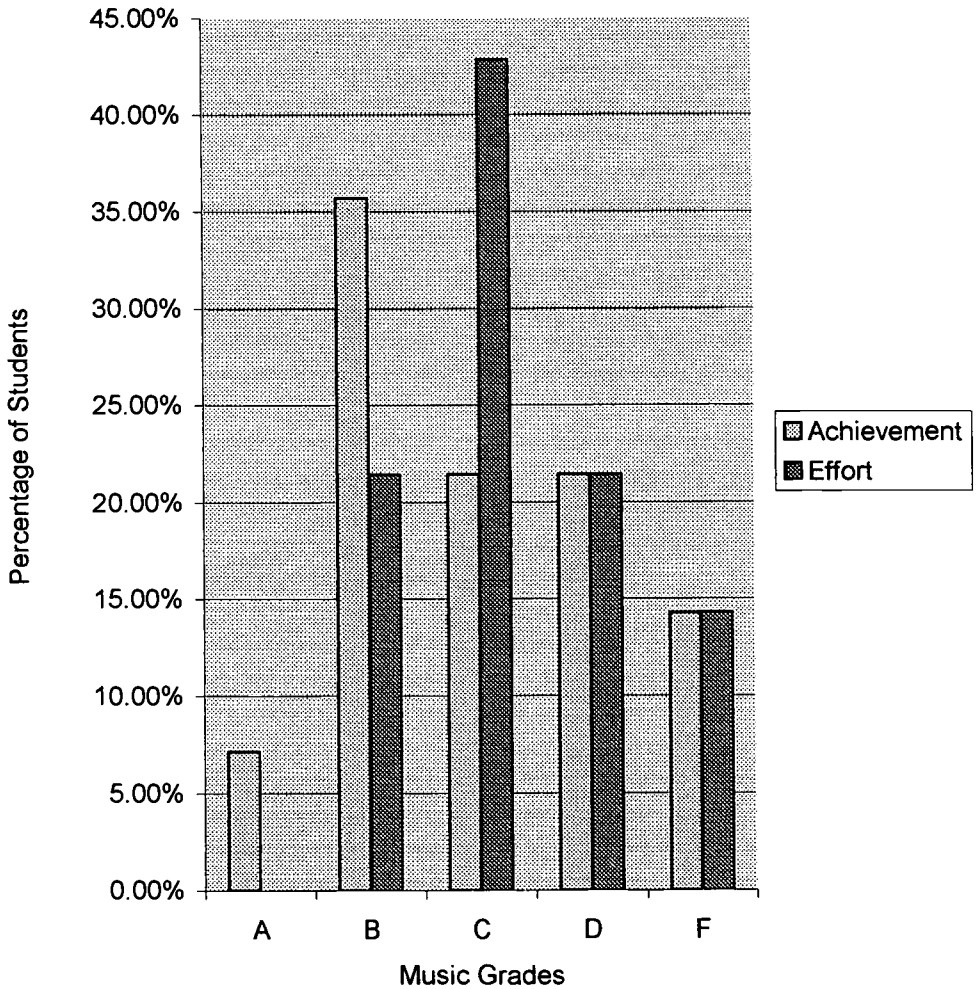


Figure 1. Graph of previous quarterly music assessment scores, Spring 2000.

N=14

category (average to above average), and a moderately large minority of 35.72 percent within the "D" to "F" grade category (below average) as indicated in figure 1.

The fourteen targeted seventh grade music students were surveyed at the site with a preliminary student music survey tool developed by this researcher (Appendix A). For the sake of clarity in understanding of the survey questions, the music instructor guided students by direct instruction, explained each question item, and provided time for student questions on the survey items. An item analysis of the student music survey results and graph of student response comparisons are shown in Table 2 and Figure 2.

Survey results are expressed in combination totals of the "agree" and "strongly agree" categories, combination totals of the "disagree" and "strongly disagree" categories, and "no opinion" as a separate total as described below. The results of the survey are as follows: in item questions three and nine, students responded favorably in having a desire to acquire new music skills (71.43 percent, combined total), but a majority held no opinions in considering music technology as an enjoyable or alternate way in learning music (64.29 percent). Scores on students' preferences and enjoyment with studying and listening to different musical styles in question ten was found at 50.00 percent (combined total agreement) and with a very large minority with no opinion (42.86 percent). In questions five and eight, students working in partners or groups were found very favorable (85.72 percent and 85.72 percent combined totals). In item questions six and seven, students enjoyed listening to music outside of school as a favorite leisure activity (85.71 percent combined totals), but held no opinion with the thought that experimenting with the electronic keyboard (synthesizer) would encourage them to pursue other band instruments in high school (71.43 percent).

Table 2

Seventh Grade Preliminary Student Music Survey Item Analysis, August 29, 2000.

Item Question	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1	14.29%	64.29%	21.43%	0.00%	0.00%
2	42.86%	28.57%	28.57%	0.00%	0.00%
3	28.57%	42.86%	14.29%	0.00%	14.29%
4	35.71%	42.86%	7.14%	0.00%	14.29%
5	35.71%	28.57%	28.57%	7.14%	0.00%
6	35.71%	50.00%	14.29%	0.00%	0.00%
7	0.00%	14.29%	71.43%	7.14%	7.14%
8	21.43%	64.29%	7.14%	7.14%	0.00%
9	7.14%	21.43%	64.29%	7.14%	0.00%
10	7.14%	42.86%	42.86%	0.00%	7.14%
11	14.29%	42.86%	28.57%	14.29%	0.00%

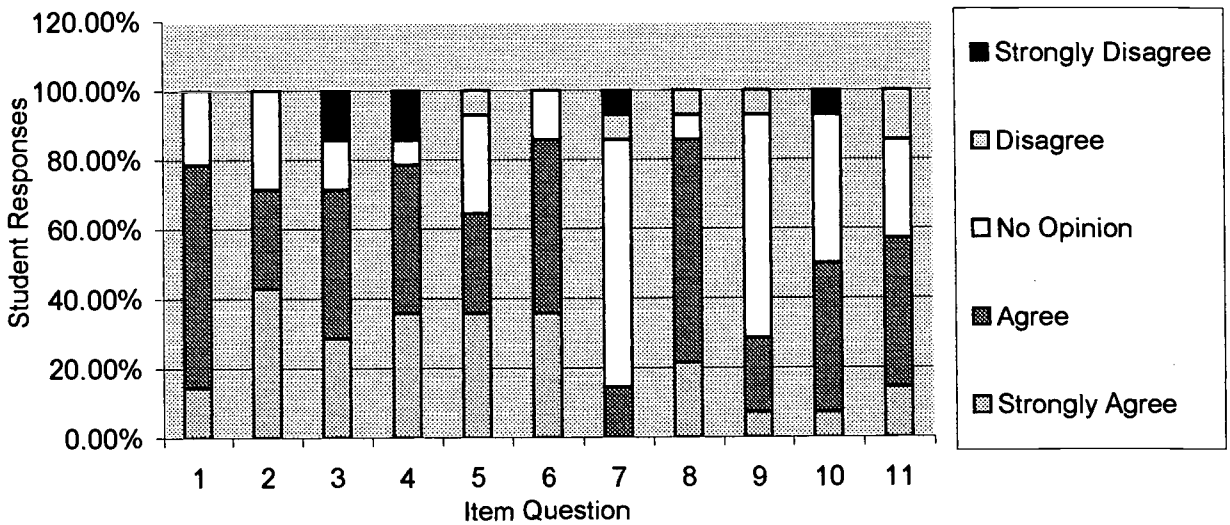


Figure 2. Graph of Item Question Analysis for Preliminary Student Music Survey, August 29, 2000.

N=14

Table 3

Statistical Results of Seventh Grade Preliminary Music Survey, August 29, 2000.

Item Question	Mean	Mode	Median
1	2.1	2	2
2	1.9	1	2
3	2.3	2	2
4	2.1	2	2
5	2.1	1	2
6	1.8	2	2
7	3.1	3	3
8	2.0	2	2
9	2.7	3	3
10	2.2	2.5	3
11	2.4	2	2

Key
Mode & Median Score

1 = strongly disagree

2 = disagree

3 = no opinion

4 = agree

5 = strongly agree

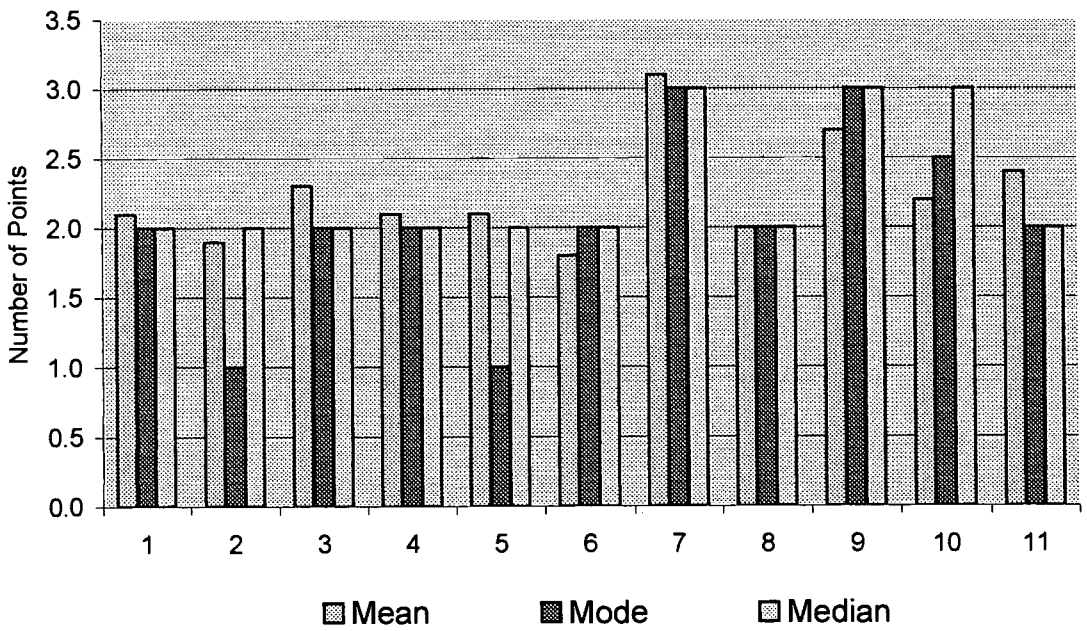


Figure 3. Graph of seventh grade preliminary music survey displaying mean, mode and median scores.

Student attitudes toward the instructor's classroom management included: having enough time for skill improvement (question one) at 88.58 percent (combined totals agreed); students choosing the topics for music class study (question two), at 71.43 percent (combined totals agreed); receiving praise / rewards for student efforts (question four), at 88.58 percent (combined totals agreed); and feeling comfortable to ask questions and give comments (question eleven) 57.15 percent (combined totals agreed). Statistical results from graphs of mean, and mode scores indicated high levels ranging from agreement to very strong agreement with a high level of validity as indicated by Table 3 and Figure 3.

Some implications can be inferred by the students' responses on the music survey, such as: increased class time which may allow more practice time for musical skills; improved music skills which may cause less frustration and greater student performance; increasing student music skills allow more opportunities and choices for music instrument (keyboard) experimentation; group/partner work may encourage engaged and motivated learning; music technology which may create positive and effective learning experiences, be it lasting, temporal, or novel engagement; and maximizing listening choices of musical styles which may boost creativity in musical composition. The results of the survey may suggest some cause and effect relationship between the students' variables of personal preferences and personal music attributions which advertently correlate to students' previous quarterly music assessment scores.

The fourteen, targeted, seventh grade music students were observed for three, forty-minute class periods in a one week period. The teacher music observation checklist on student participation and effort, created by this researcher, was implemented to create base-line data on preliminary student behaviors (Appendix B).

Three, different music activities were presented throughout the week by the music instructor (researcher). The objective for teacher observation was to collect and compare data on three separate categories of student participation and effort. The three categories consisted of students following assignments, contribution of ideas to team/partners, and positive communication and completed tasks. Student music observation scores were then recorded for each individual student by the researcher at the conclusion of every class period within the week. Music activity resource materials were taken from a popular, current middle school music curriculum.

Activity A, consisted of a lesson where students listened and sang to the Big Band, forty's style song, Dancin' on the Rooftop. Students then created simple dance movements to the song in order to show understanding of the song's form (ABC form), and then practiced score reading from the selection. Activity B, consisted of listening to several popular song excerpts from the 1990's that was narrated from a story-line based on paralleling major world news and music events from the 1990's (a sound capsule of 1990's music). Activity C, consisted of a lesson where students listened, sang, and played rhythmic ostinatos on percussion instruments that accompanied the 1950's song, Rock Around the Clock.

The category score results for "students following music assignments", based on number of student tallies from observation rating scores, indicated that Activity A was viewed by most students as the most interesting. The most frequent student "rating scale score" ratio for Activity A (majority number of student behavioral responses : minority number of student behavioral responses) was 8:6 ("frequently"); Activity B was 7:7 ("Sometimes"); Activity C was 9:5 ("not yet"). Student interest within the week's music assignments had decayed with each following activity (Table 4A and Figure 4A).

Tables 4A - 4D

Teacher Observation Scores Reflecting Student Participation and Effort,

Week of August 30, 2000

Table 4A

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	2	3
2	3	2	2
3	3	2	1
4	2	1	1
5	3	1	1
6	2	3	1
7	2	2	2
8	3	3	3
9	3	2	2
10	3	2	1
11	2	2	1
12	3	3	1
13	2	1	1
14	2	1	1

Table 4B

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	1	1	1
2	3	2	2
3	1	2	1
4	1	1	1
5	3	2	1
6	2	1	1
7	1	1	1
8	3	3	3
9	2	2	1
10	2	2	1
11	1	1	1
12	3	2	1
13	1	1	1
14	2	1	1

Table 4C

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	2	1
3	2	2	1
4	2	1	1
5	2	2	1
6	2	2	2
7	2	2	2
8	3	3	3
9	2	2	1
10	3	2	1
11	2	2	1
12	3	3	2
13	2	1	1
14	2	1	1

Table 4D

Totals			
Student	Activity A	Activity B	Activity C
1	7	6	7
2	9	6	5
3	6	6	3
4	5	3	3
5	8	5	3
6	6	6	4
7	5	5	5
8	9	9	9
9	7	6	4
10	8	6	3
11	5	5	3
12	9	8	4
13	5	3	3
14	6	3	3

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4 - 6 = demonstrates effort
7 - 9 = demonstrates progress in effort

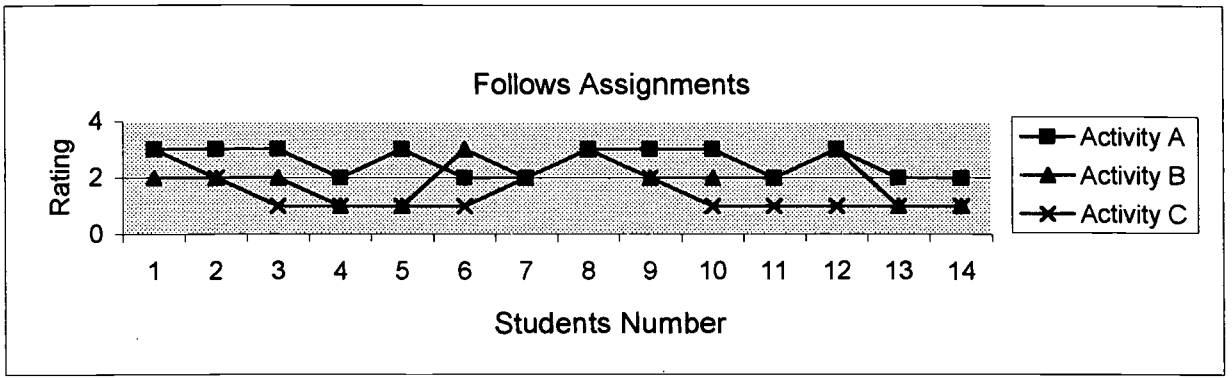


Figure 4A. Graph reflecting students' levels of following music assignments during the week of August 30, 2000.

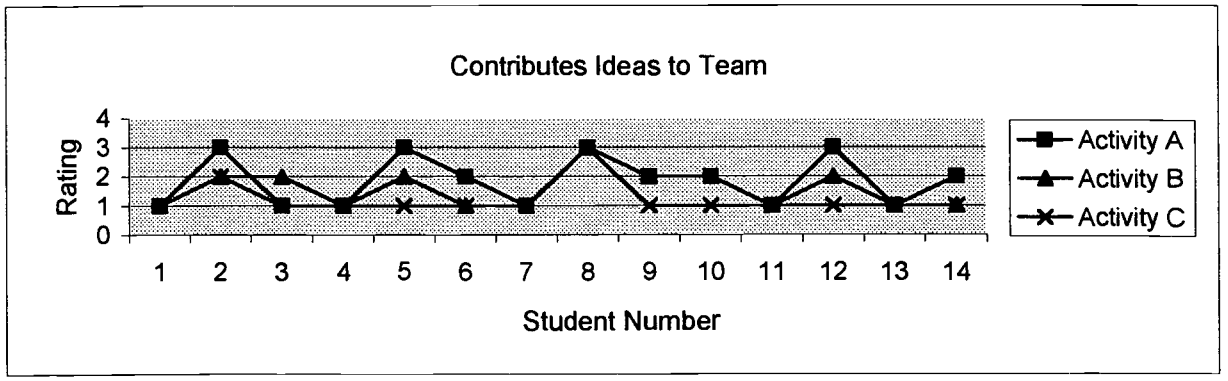


Figure 4B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of August 30, 2000.

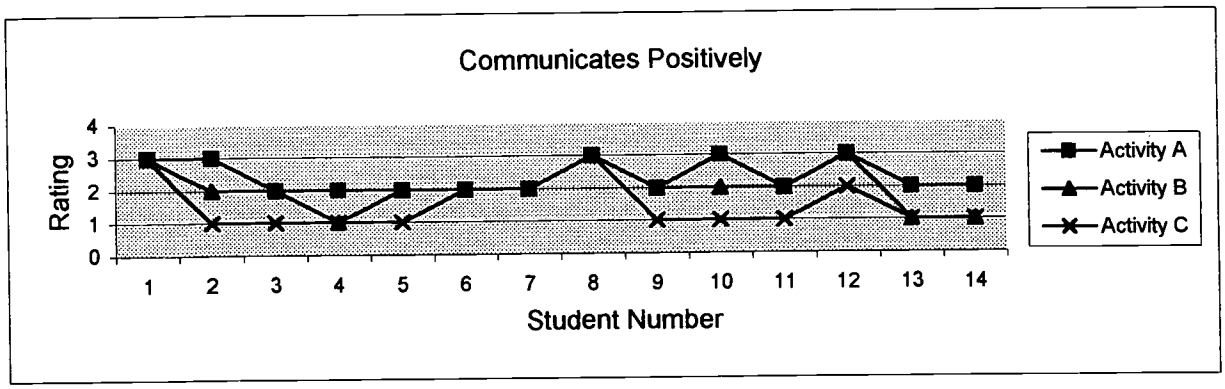


Figure 4C. Graph reflecting students' levels of positive communication during the week of August 30, 2000.

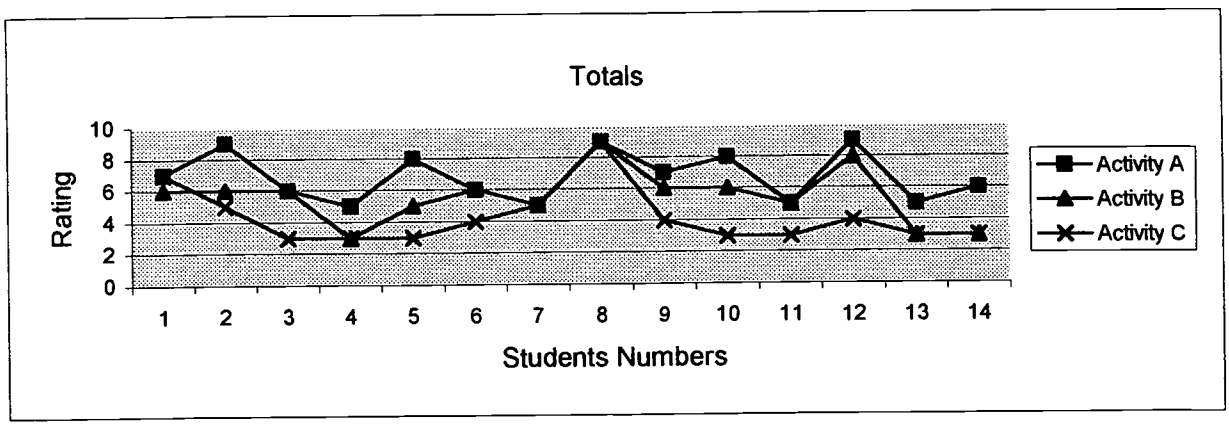


Figure 4D. Graph reflecting students' composite scores for all observation categories during the week of August 30, 2000.

Category score results for "contributes to team and partners" in Activity A was 4:10 ("frequently") and 4:10 ("sometimes"); Activity B was 7:7 ("not yet"); and Activity C was 12:2 ("not yet"). Students' music interest and motivation is steadily diminishing (Table 4B and Figure 4B).

Score results in the category "communicates positively" in Activity A was 9:5 ("sometimes"); Activity B was 8:6 ("sometimes"); and Activity C was 9:5 ("not yet"). An extremely low level of interest and motivation was found in this activity. There are no tally markings in the "frequently" category indicating that at least half of the music class was bored or disinterested with the music activity (Table 4C and Figure 4C).

Total score rating results indicated that there was a definite, dramatic down-trend in student interest within a three-day week period. Score results demonstrated that Activity A was 7:7 ("demonstrates effort") and 7:7 ("demonstrates lack of effort"); Activity B was 9:5 ("demonstrates effort"); and Activity C was 7:7 (demonstrates a lack of effort"). Total score ratings were total composite scores derived from the student rating scale totals which did not include the "completed task" category (Table 4D and Figure 4D).

In summary, the "completed task" category validated the claim that student interest and motivation had deteriorated over the course of the three-day week period. The down-trend was illustrated by students completing Activity A at 100.00 percent, completing Activity B at 71.30 percent, and completing Activity C at 35.71percent (Table 4E). It may be safe to conclude that the music students' interest declined over the course of different music activities because the activities were similar in learning tasks and students became easily bored or disinterested. Singing and listening were the most common variables within the music activities, but the movement/dance, music score reading, various song style excerpts, playing of percussive

Table 4E

Preliminary Activity Completion Inventory from Teacher Observation Checklists,

Week of August 30, 2000

Week of August 30,2000			
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	N
4	Y	N	N
5	Y	N	N
6	Y	Y	N
7	Y	Y	Y
8	Y	Y	Y
9	Y	Y	Y
10	Y	Y	N
11	Y	Y	N
12	Y	Y	N
13	Y	N	N
14	Y	N	N

Key

Y = Yes, activity completed

N = No, activity not completed

instruments, and the narrative story-line were variables that were not repeated throughout the three music activities. These variables should be further examined. The entries within the students' reflective learning journals give further depth and understanding in student attitudes toward their personal music experiences within their music class.

A fourth data collection tool was created by this researcher in order to help the group of music students organize and record their thoughts through a daily metacognitive exercise. The same group of seventh grade music students were assigned to write entries in their daily/weekly reflective learning journals (Appendix C).

Students were introduced to and directed in writing a reflective statement for each class period of the week. Students were allowed to write in the reflective statement portion of the journal sheet and then encouraged to enter any comments or questions they may have had regarding their experience in music class that day.

All students responded in giving reflective statements. The length and breadth of thought differed among students. Some entries contained at least a couple of sentences while others consisted of just short phrases. Student entries addressing the three-day week preliminary music activities, were inventoried and categorized by similar comment and/or idea (Table 5).

Significant tally scores indicated that students enjoyed the dance/movement portions and listening to music (songs) more than actually singing them (activity one and three). Overall, there were fifty-one positive statements and forty-one negative statements. A very large minority of students expressed boredom or plain disinterest, but as the week passed, more students seem to grasp the musical concepts as well as a growing number of students not grasping conceptual understanding and purpose of the activities. Activities one and three was favored by most students, indicating they enjoyed movement and listening to fast, upbeat songs.

Table 5

Inventory Totals of Student Responses from Student Reflective Learning Journals Addressing Preliminary Music Activities, Week of August 30, 2000.

Reflective Statements	Activity 1	Activity 2	Activity 3
Positive Experiences			
Enjoyed singing song	4	1	4
Enjoyed song	8	2	9
Enjoyed movement portion	11	NA*	NA*
Understood musical purpose	1	4	7
Negative Experiences			
Disliked singing	2	4	3
Disliked song	2	3	2
Disliked movement portion	2	NA*	NA*
Questioned musical purpose	1	2	1
Difficulty understanding music terminology	2	3	5
Expressed boredom	3	2	4

*NA=Not Applicable

Surprisingly, not one student commented on the percussion instrument playing. Unfortunately, there are still many other hidden variables or factors for students' lack of interest and motivation. Diverse cultural orientation, high-tech society influences, and student peer pressures, to name a few, may have possibly kept students unconsciously aware of why they did not enjoy certain aspects of music.

Probable Causes

The literature suggests several underlying causes for students' low levels of motivation in the school setting. In a study that focused on the levels of motivation to that of resilient and non-resilient inner-city middle school students and their learning environment differences, Huang and Waxman (1996, p.93), reported, "One of the greatest challenges in education is addressing the large number of students who could be considered at-risk of failure. Resilient students showed significantly higher social self-concepts and motivation than non-resilient students within their classroom instructional learning environments."

Student-based risk factors included: substance abuse behaviors, sexuality, criminal activity, truancy, lack of motivation, limited English language competencies, and lack of normative experiences according to Connell, Spencer, and Aber; Ruff; Karweit, Madden, and Slavin (as cited in Johnson, 1997). Moreover, Crist (as quoted by Johnson, 1997) stated that students at-risk "report that teachers do not understand them, the work is too difficult or boring, they fear for their physical safety, they cannot participate in extracurricular or social activities, and they get little or no support from home" (p. 2).

"At-risk learners often enter the classroom discouraged and disillusioned as the result of their repeated failures. Their self-esteem is low, and they frequently believe themselves incapable of learning. A climate that is focused primarily on production and outcomes reinforces

these insecurities" (Pierce, 1994, p. 3).

According to a study of Reyes and Jason (as cited in Meece and Miller, 1997) that targeted resilient and non-resilient students, it was found that there were no differences between two differing groups within the same socioeconomic status, parent-student involvement, and parental supervision. Low-risk (resilient) students, however, reported significantly more satisfaction with their school than did high-risk (non-resilient) students. On the other hand, high-risk students were more likely to respond that they had been invited to join a gang or had brought a weapon to school.

Through a study that utilized an alternative learning program to measure the effect on student motivation and self-esteem at the high school level, Nichols and Utesch (1998) found the following:

> Students who failed to complete the alternative learning program were initially significantly higher in extrinsic motivation. This suggests that dropouts may be motivated by extrinsic rewards to the point that they fail to make the connection between high school and graduation. Second, and perhaps most significant, is that students failing to complete the program were initially higher in peer self-esteem. The influence of peer group as an essential contributing factor to student goals and academic success has well been documented. These dropout participants may be receiving feedback from a cohort group that is not compatible with the continued education goals and therefore, choose to drop out because of the linkage of self-esteem to an unsuccessful or unmotivated peer group (p. 277).

When implementing the Rise Model of Student Motivation, Hootstein (1996) stated, "At-risk students are not motivated to learn in classrooms. They are inattentive, bored, and unable to

see much connection between school learning and their outside lives - - where they often face poor health and nutrition, substance abuse, teen parenthood, poverty, violence, racism, and low self-esteem. Their boredom and preoccupation with personal problems lower the quality of their lives in school - - and probably have a demoralizing effect on teachers as well." (p.97)

Family-based factors that affect at-risk students included: parent and sibling substance abuse, family violence, lack of parental supervision, lack of parental educational support and involvement, parents who speak English as a second language, criminal parental behavior, and having a sibling who has dropped out of school according to Barr and Parret; Johnson; Liontos; Reynolds and Wang (as cited in Johnson, 1997).

In addition, Pierce (1994) indicated the following probable causes in a case study that addresses classroom climate:

> Underlying these characteristics of the at-risk learner are complex factors, many of which are outside the control of the school. Social problems such as poverty, dysfuctional family life, lack of positive role models, poor medical care, and inadequate diet complicate the teaching-learning process. These students frequently come to school lacking cognitive schemata upon which classroom instruction is ordinarily based (p. 37).

Specifically, in regard to the area of music education, individuals with long-term commitment to music are much more likely to have experienced intense aesthetic and emotional reactions to music at an early age than those who did not have such commitment (Davidson, Howe, and Sloboda 1996). The results suggested that parental encouragement through support is more important than the musical skill. It's in assisting the child's musical development that's crucial.

In the same study, The Role of Parents and Teachers in the Success and Failure of Instrumental Learners (Davidson, Howe, and Sloboda, 1996), reported the following:

> The results indicate that persistent music learners have rather different musical relationships with their parents than children who give up learning. Initial motivation for the persistent learners was extrinsically provided by the parent. With time, however, the children's motivation became increasingly intrinsic and self-sustaining. For the children who gave up, the inverse pattern emerged: there was little extrinsic motivation initially, then great amounts of external input at the point at which the child's own intrinsic motivation became nonexistent (p.44).

In terms of low self-efficacy, self-concept and self-esteem, Bandura 1986 (as cited in Nichols and Utesch, 1998) argued that an individual's efficacy beliefs influence motivation in several ways. Individuals with low self-efficacy will tend to avoid activities they believe are beyond their capabilities, so they selectively choose easier tasks where the chances for success are greater. The amount of effort that an individual invests in an activity and the level of persistence at difficult tasks is also linked to efficacy.

Predisposed at-risk students experienced certain school-based risk factors, that included: teacher prejudice, and unwillingness to modify curriculum and individualize instruction according to Davis, Franklin, and Haney; Reeves and Taylor (as cited in Johnson, 1997).

Researchers, Anderson, Heibert, Scott and Wilkinson (as cited in Meece and Miller, 1997, p. 286) wrote, "elementary school instruction, with its emphasis on low-level uniform assignments, normative standards, and high teacher control, does little to increase students' motivation to learn."

A summary of the possible causes suggested from the site and professional literature addressing low levels of student motivation includes:

1. Student-based music factors :
    a. Distinct, biased, and set personal music preferences
    b. Lack of development and confidence in personal non-instrunent skill
    c. Lack of desire to pursue instrument playing and develop instrument music skills.
2. Student-based non-music factors:
    a. Low self-efficacy, self-esteem and self-concept due to repeated failure.
    b. Disillusionment, boredom, and failure to see the value in school.
    c. Negative peer group influences in drugs, gang pressure, crime and violence, racism and fear for physical safety.
3. Family-based factors:
    a. Dysfunctional family unit and lack of parental relationship, support, supervision and encouragement.
    b. Family poverty, poor medical care and lack of nutritional diet.
    c. Family violence and family criminal behavior.
    d. Non-English speaking parents.
4. School-based factors
    a. Lack of individualized instruction and teacher unwillingness to modify instruction.
    b. Normative standards, teacher prejudice and high teacher control.

c. Low level uniform assignments.

d. Lack of extrinsic and intrinsic rewards

These cited influences and possible causes result in decreased levels of student motivation that hinder the students' cognitive growth and future success within their music achievement.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

Considering the educational needs of students who exhibit low levels of motivation and interest, it has been found that the existing professional literature supports and suggests implementing a curriculum that includes the learning theory of multiple intelligences and student evaluation through authentic assessment means. In addition, incorporating the use of technology and positive teacher feedback as motivational tools can also directly increase students' motivation levels as cited within the professional literature.

While fostering musical intelligence, music education programs have been found to attain diverse and positive behaviors and interests. From musically to non-musically inclined students and to that of advantaged to at-risk students, within Davis' study, Harvard Project Zero (as cited in Colwell and Davidson, 1996), students were found to be more attracted to music elective experiences that promoted goals of self-motivation , empathy, and self-awareness, reducing dropouts, violence, and the rise of boredom resulting from a lack of positive peer interaction.

Intelligences are educable. According to multiple intelligences (MI) theory, even students not gifted in these domains can improve, but they may need to begin by drawing on their stronger intelligences (Blythe et al., 1992).

When incorporating the discipline of music and the theory of multiple intelligences, Kassell discussed the importance of developing meaningful music connections to other discipline content areas that would not necessarily compromise the integrity of any music program. Students themselves hopefully will make interdisciplinary connections in conceptual understanding and actively experience music positively through listening, creating, improvising, or performing. Creating interest and motivational hooks in student learning is key. "It is

possible to integrate music with educational and musical integrity in ways that can lead students to a deeper involvement with the basics of music literacy and can provide what Gardner had originally intended, "a multiple entry point" (Kassell, 1998, p.32).

When using music to motivate and teach students other disciplinary contents, it would be advisable to transfer the learning content between both disciplines if genuine understanding is to be achieved. Translating content between two disciplines is crucial. (Kassell, 1998). Furthermore, on the flip-side of transferring academic disciplines to music, Kelstrom (1998) supports the idea that music aids in the development, reinforcement and improvement of cognitive and critical thinking skills, reading and writing (linguistic intelligence), eye-hand coordination and motor skills (bodily kinesthetic intelligence), math and problem solving, and science (logical/mathematical and visual/spatial intelligence).

In ideas for facilitating learning through motivation within the classroom, Chapman (1993) suggested promoting variety and restructuring of lessons and units that target different intelligences, integrating the curriculum around the multiple intelligences, responding to individual needs and creating a more educationally holistic, learner-centered classoom climate.

In a qualitative survey study, Harper, Jordan, and Mettetal (1998) observed, surveyed and interviewed students, parents, teachers and administrators in a school setting that implemented a school-wide Multiple intelligences (MI) curriculum. The verbal, logical mathematical, musical-rhythmic, visual-spatial, bodily-kinesthetic, inter- and intrapersonal MI strategies were used. Positive results were expressed in the concept of the MI curriculum which included block scheduling (flow time), activity room (centers for MI activities) and enrichment clusters (multi-age/grade levels of students with common interests). Teacher-made MI-based lessons and student-choice centers where students worked on activities that focused on their

particular MI strengths or interests were used and found effective. Teachers found the enrichment clusters to be less desirable because of the time demand. Students were able to express and demonstrate their understanding (assessment) of learned concepts through a menu of activities, and they did gain much confidence and self-esteem.

According to Blythe, Gardner, and White (1992) in regard to developing a unit or topic of instruction, the rationale for a project approach utilizing multiple intelligence strategies within the Key School, includes the following:

> Projects can allow students to choose topics or approaches that fit their interests (Olson, 1988). Projects also provide opportunities for extended work with peers, which develop interpersonal skills. Given the opportunity to present their information in forms other than writing, students can develop and display musical, spatial, and kinesthetic skills. Several elements of the projects encourage students to draw on and to develop multiple intelligences. The Key School's general course-work, which feeds into the projects, encourages (students) to be creative and personal in developing projects. Working on projects for extended periods of time, cooperating with others, performing or presenting their projects to classmates, and documenting the process and product on videotape, which captures much more than written documentation. With its focus on extended projects that emphasize a range of skills, including linguistic, musical, and interpersonal, the Key School has a lively and productive atmosphere. Students can be encouraged to take some of the responsibility for shaping their school experience. If students have had the opportunity to learn something about their own intelligences, they have a better chance to find approaches that will work for

them when facing tough assignments (p. 131)

In the creation and development of a curriculum strategy that integrates the multiple intelligences, Silver and Strong (1997) suggested the following: 1) Focus on one intelligence at a time and offer students a learning style that they would normally prefer and one style they would avoid (may be done for the individual student or for the whole class), 2) use the intelligence menus as a compass for instruction (keeping record of the styles used and avoided, and offer various forms of assessment), 3) build on student interest (students choose learning styles when conducting individual or group research). Overall, does the learning strategy help each student discover and develop his or her unique abilities and interest?

Musical intelligence is developed through sound assessment practices. Students in self-evaluation and goal setting practices may be key to facilitating student motivation.

In a paper that explores several interpretations and applications of authentic assessment, Perkins and Salomon (as cited in Cumming and Maxwell,1999) stated:

> Motivational benefits are expected to accrue when students can perceive the relevance of learning and assessment activities, thereby enhancing learning outcomes. This theoretical consideration incorporates concerns about the transfer of learning from one educational context to another, from formal education to personal life and the workplace, and from life to workplace to formal education (p. 178).

Vaidya (1999) discussed how students of learning disabilities suffer from a low self-image due to academic failure. She explained that the concept of attribution theory places a student's self-perception of successes at a higher rate, in regard to the student's perceived abilities, which directly affects the student's motivation. She suggests that students be taught

metacognitive strategies through authentic assessment means. Being self-aware by writing, planning, monitoring, and evaluating self-learning, will help students problem solve through difficult academic and social challenges.

Students need to make constructive meaning for themselves. Self assessment and self-reflection bring meaning to students' self-awareness of strengths and weaknesses. With regard to implementing authentic assessment strategies, the North Central Regional Education Laboratory (as cited in, Burke, 1999) rationalized:

> Assessments, therefore, should focus on students acquiring knowledge, as well as the disposition to use skills and strategies and apply them appropriately. Recent studies suggest that poor thinkers and problem solvers may possess the skills they need, but may fail to use them in certain tasks. Integration of learning, motivation, collaboration, the affective domain and metacognitive skills all contribute to lifelong learning. Assessment practices must stop measuring knowledge skills and start measuring the disposition to use the skills (p. *XV*).

Authentic assessment also known as alternative assessment has been found to be a highly effective way in evaluating students' work. Student evaluations resemble class authentic work that relates directly to the learning tasks implemented in the real classroom. In a quantitative study concerning assessment practices, questionnaires were given to eight hundred, ninety-three teachers in thirty-four schools representing various grade levels and subject areas. It was discovered that performance and observation-based assessments were the most used assessments among teachers. Teachers felt the most confident in accurate measures and validity of student achievement and progress within these two forms of evaluation (Bol et al., 1998). Bol found portfolio and self-assessment evaluation techniques to be the least used by teachers because of

the lack in teachers' training, preparedness, practice and confidence. No assertion was made that these two other strategies were ineffective.

In a discussion on authentic assessment and curriculum integration, Martin-Kniep (1994) suggested that when incorporating an integrated curriculum (i.e. multiple intelligences), strong knowledge base, student-centered activities and hands-on instructional strategies, although necessary, are not the sole ingredients for student success when implementing an integrated curriculum. Alternative assessments such as performance-based tasks, portfolios, journals, are means that help students and teachers assess student processing of knowledge, problem solving, and skills.

In a survey study that sought elementary teacher practices on student motivation, teachers indicated that sixty–two percent of teachers polled, employed student goal-setting, and thirty-eight percent of teachers utilized academic expectations (Madden, 1997). The main issue argued by Madden is that students are not as easily motivated by academic expectations, but are more apt to be motivated if they felt that the learning outcome would be successful, especially if outcomes are included within the establishment of individual goal-setting. Students will positively perceive their future success if learning expectations are reasonable. Madden concluded, that when teachers assist students in the development of individual goal-setting, there can be clear understanding that students possessing high levels of self-efficacy tend to already be self-goal setters. Therefore, students possessing low self-efficacy will ultimately need instant and proximal rewards such as positive and rapid feedback.

An effective solution to increasing student motivation in music education was found through the practice and implementation of individual student self-evaluation and self-formulated goals. Specifically, Brandstrom (1996) experimented with piano students' instruction

and successfully instilled within his subjects a high level of independence in self-evaluation and self-direction within their piano curriculum. Results of the study indicated that seventy-one percent of the participants had a positive to highly positive attitude throughout the project and fifty-five percent of the participants had improved their music skills. Students voiced their self-reflective thoughts in qualitative means addressing their interests and progress in terms of influence on planning, learning contents, self-pacing, and choice of piano repertoire. Brandstrom, inserts, "As I see it, the teacher still has a function, and his or her most important role is to create an educational environment and to awaken and stimulate the inner motivation of the student" (p. 20).

The National Assessment Governing Board (as cited in Goolsby, 1995) mandated that at least ninety percent of the National Assessment Educational Progress in the Arts when planning for 1997, were measured by authentic assessment means. Goolsby asserts that portfolio assessment makes for better evaluation in the general music classroom and that this kind of assessment would measure student growth. Students' best and typical work would be kept in the portfolio. Time consuming prep, individual student conferences and the overseeing of the student portfolios is pressing for both teacher (evaluator) and students (developers). Goolsby states that portfolio assessments "...provide an outlet for motivated students who wish to achieve beyond the standards" (p.43).

Authentic assessment strategies suggested by Chido et. al., (1998) include: a seating chart/observation checklist (based from a rating scale or performance rubric with an easy plus or minus system), videotapes of students to be viewed and critiqued by the teacher, student, group or self, and rubrics. Computers can document student authentic work too, especially with note reading and music composition software.

Hickey (1999) and Whitcomb (1999) suggested that the writing of rubrics for upper elementary through high school music grades be used to help in the assessment of music students' work. Hickey reports that rubrics should be given to music students and kept in their portfolios to keep students aware of class expectations. He adds that the rubric can give very defined limits (i.e. musical concepts and composition) and student freedom with broader suggestions for student exploration. "Rubrics not only help teachers to understand and measure students' achievements but also help students to become sensitive and informed critics of their own work" (Hickey, 1999, p. 27). "Students can refer to the rubric while completing the project, using it as a checklist for success" (Whitcomb, 1999, p. 27). Whitcomb adds that rubrics can be utilized to assess individual student writing based on music themes (i.e. composers and the culture of their time) which helps to assess instrumental performances.

Another form in motivating music students is the communication link in teacher feedback. The importance for students to understand verbal, non-verbal and written communication is imperative for success in school. Unfortunately, not all students process or perceive the same, and therefore, teacher direction is crucial and must be specifically directed with purpose.

In regard to teacher feedback and young children in formative assessment, Gipps, and Tunstall (1996) discussed the various ways to deliver teacher feedback including verbal praise, written feedback, guidance and extension to foster students' cognitive development. In their qualitative study, Gipps and Tunstall chose to experiment with subjects of early grade school students and conducted the research within five local education authorities in London, England. Student ability levels were of three categories, low, average, and high attaining. The focus of the study was to determine students' perception of teacher's feedback in which interviews, reviews

and examinations of student work, and tapings of classroom dialogue was conducted. The typology of feedback chosen was verbal and non-verbal (positive or negative), approving or disapproving comments, extrinsic rewards, use or non-use of explicit criteria, feedback to only individual children, and feedback for class management. The objective was to develop a typology of feedback that all teachers could at some point use. Type D feedback was most favored by teachers within this study. The feedback entailed teacher conversations and discussions with students (individually or in groups) in an attempt to develop mutual partnerships with individual students and class. This feedback was found to be more appropriate for this particular age group.

In a quantitative investigative study conducted by Taylor (1997), student interpretation of teacher verbal praise and students' self-awareness of individual abilities in a choir are the examined problems in this study. The targeted groups were seventh and eighth grade students. The intervention involved having students view sixteen prepared video segments of choral instructors demonstrating praise to encourage, gain student cooperation, and to instill positive modeling in student behaviors. While teachers were not present, students viewed the video segments and chose from a list of four responses and recorded their feelings. It was found that there were no student differences in interpretations between that of low to high ability skill students. Taylor stated:

> Students who knew their teacher's expectations for "good" performance may have reasoned that, if the performance met the teacher's standards, the praise was deserved. It seems that students who did not know the teachers were less willing to take the teacher's praise at face value (p. 544).

In a investigative study set in a quantitative, experimental questionnaire design, Schmidt (1995) examined summer camp choral students' attributions of success in relation to their perceptions of their choral instructor's behavior feedback. The population was randomly selected in age and sex from fifty-five schools within ten states of varied demographics and socioeconomic factors. No audition was required for participation in the study and student music skill levels varied. The intervening treatment consisted of short teaching episodes of five to ten seconds in length for student viewing. Students then performed the instructed task followed by the instructor's immediate feedback with approval or disapproval and supporting comments and remedies. It was found that student's attributions of success and failure were generally consistent. Attributions did not differ much from grade level or gender, and personal praise and approvals were positively received more with female students than the males students. Disapproval of the male group behaviors were found with choral instructors feedback. The instructor's comments and remedies were less effective for modifying the male student behaviors. Schmidt stated:

> Approval feedback that focuses on student improvement appears to be valued most by students while norm-referenced approval is valued least. That is, students rated improvement feedback as relatively good, meaningful, sincere, and effective while they rated norm-referenced feedback as relatively bad, meaningless, insincere, and ineffective" (p. 325).

In an article that examines findings from a survey questionnaire, Elwell and Tiberio (1994) discussed why students value and react to teacher praise differently and why teachers must understand when and where praise should be used to elicit positive results. In this survey of six hundred and twenty secondary students consisting of a Caucasian majority and a small

minority of African American, Hispanic, and Asian students, Elwell and Tiberio stated:

> Results showed these students generally perceive praise as appropriate and expected for different academic and social behaviors. Praise was regarded more highly for academic work and preferred to be given quietly and privately in most cases. Students at all grade levels responded favorably to praise in all areas by the Praise Attitude Questionnaire. The results support the argument that secondary students view teacher praise favorably (p. 326).

In a discussion on feedback and multiple purposes for management classrooms, Larsen (1998) encouraged the implementation of teacher feedback for eliciting self-motivation and student leadership. Credibility and sincerity are important to student's perceptions and interpretations of teacher feedback. "Bringing feedback more actively into the classroom, then, helps (business) management students monitor their environments more consciously. They will use the classroom critiques and feedback-seeking more easily to understand their own performance, and they will apply this knowledge and experience more actively" (p.7).

A list of effective motivational behavior strategies, in regard to creating a nurturing classroom environment with positive feedback, was suggested by Stammer (1999) in a discussion on motivational strategies addressing the choral rehearsal and they are as follows: 1) positive verbal reinforcement for student efforts, 2) congratulate individual musical achievements and accomplishments, 3) provide classroom performance opportunities, 4) provide detailed explanations of student progress, 5) outline students' strengths and areas needing improvement, 6) provide help and availability to answer students questions, and 7) provide constant feedback regarding music progress to class and individual students. Stammer states, "The most effective motivational techniques choral educators can apply is

paying attention to the personal and musical development of their students (director-to-student attention)" (p. 26).

Teachers should create student-centered models of teacher-to-student feedback that are believed by students to be sincere. Fostering a reciprocal learning experience in feedback is crucial (Latham, 1997). Potter (as cited in Latham, 1997) constructed a simple feedback form using three columns. One column labeled as "suggested improvements", the second labeled, "student strengths", and the third labeled, "student feedback". This form opens a door for teacher-to-student and student-to-teacher communication in a private and sincere way.

Two writers, Hickey (1999) and Whitcomb (1999), suggested teachers utilize individual student portfolios as a means to student-to-teacher and teacher-to-student feedback. Furthermore, Hickey mentioned the importance of teacher-created rubrics as a form of teacher feedback to student guidelines, direction and student expectations. Hickey adds, "When students are assessed according to rubrics, grades do not take them by surprise, puzzle them, or leave them without feedback" (p. 28).

The growing pains of implementing technology in education is worthwhile, valued, and heavily realized in the weight of its impact as a powerful tool for facilitating achievement in learning and student motivation. In a study that combined two strategies of team-teaching and computer technology in order to maximize student achievement, it was found that the use of computers required more time from students in becoming acquainted with the use of the technology before they were able to use it as a tool for learning (Hecht and Roberts, 1996). Regardless, the researchers suggested that time should be given within the curriculum for students to learn and explore the new technology, and that even assessments include the observance in technical understanding and facility as an important necessary skill alone to be

mastered. Hecht and Roberts concluded, "Districts must learn to value the curricular depth made possible by computer exploration, and demonstrate this valuation by allowing for modification in both curriculum content, delivery, and assessment" (p. 324).

An important factor to consider when contemplating the use of computers in the classroom, are the attitudes of those learners who will utilize the technology throughout their learning and of those who instruct. Taisir (1999) conducted a quantitative research study on attitudes toward computers from students and their teachers. The research targeted gifted students and their attitudes between genders and then examined the same comparisons made between students' teachers. The Likert-type questionnaire items reflected, three main types of attitudes: 1) confidence and ability, 2) enjoyment and liking of computers, and 3) anxiety or fear of computers. Response choices were from strongly agree to strongly disagree. Results showed that both students and teachers chose more from the polar ratings of the rating scale revealing more approval. Males, on the part of both students and teachers chose responses that were center-moderate on the scale, revealing moderate responses as computer-favorable responses. Overall, the study revealed student and teacher attitudes toward computers as generally positive.

Technology can be praised for its ability to effectively teach and empower students with special needs such as delayed cognitive processing and physical disabilities (Ryba and Selby 1995). Due to the cooperative learning element with the use of computer partners, positive social interaction among low ability student partners can develop and increase student motivation and therefore improve one's achievement. Ryba and Selby stated:

> The computer provides a student-centered learning environment that is truly empowering. It allows the student to exercise control and act purposefully to

> achieve a desired goal. Perhaps most important, learning with computers can be fun for students who have experienced excessive amounts of failure in conventional teaching situations. Computers provide a good context for celebrating students' learning achievements (p.84).

The use of technology in music education, has been found by music educators as extremely motivating for music students of today (Bissell, 1995, 1998; Muro, 1997; Reese, 1995). Muro asserts as to why music technology works in the motivation and achievement of music students:

> Our students are frequently using computer and electronic instruments at home and in other subject areas. It makes sense to incorporate this technology into the music curriculum. Remember the primary reason for learning music technology is to enable us to meet the needs of our students in a rapidly changing world and to address these needs productively. Technology captures the imagination of students and provides motivation for learning. Students bring with them a fascination for computer games and electronic musical instruments. For some students, the computer is regarded as a trusted friend. We can tap into this motivation and fascination by using the same technology to teach musical concepts and skills that students will need to become good listeners and performers (p. 28).

Midi music software programs elicit authentic student music compositions. These music notation and drill programs have been found to motivate student creativity (Bissell, 1995, 1998; Forest, 1995; Muro, 1997; Reese, 1995, 1998; Ryba and Selby, 1995). Many schools are installing general computer labs with computers equipped for sequencing software programs that

are independent of MIDI Keyboards (Reese, 1998). Within these sequencing (multi-track recording) software programs, student can actually see and hear individual instrumental parts that are notated and see how they contribute to the overall texture in a piece of music. Students then can easily record, edit, save a file and expand on their own individual music compositions at a later class period.

Motivating students begins with small steps of successful student experiences layered upon others with constant reflection on those past successes. Reese (1995) explains a teaching strategy that illustrates young student composers experiencing these small steps of success in the instruction and development of early MIDI music composition:

> A central theme of the course is that composers often work by creating relatively short musical ideas (motives and phrases) and then develop and extend these ideas into complete musical pieces. These ideas include rhythm patterns, melodic motives or phrases, chord progressions, or simply intriguing tone colors (instrumental voices). Thus we introduce students to skills they need to create musical fragments. Then they alter and manipulate these fragments into longer and more complete phrases and sections. Within the twelve-week period, students generally have been able to complete three or four composing projects. The typical process for carrying out a project has been an alternation between demonstrations or explanations for the whole class and small group work to carry out specific tasks at the workstations (p. 38).

The implementation of electronic keyboard labs has been found to motivate music students and increase their musical interest (Arnett, 1995; Bissell, 1998; Forest, 1995; Muro, 1997). With student exploration and development of keyboard skills, students develop music

creativity and understanding, and interest in other instruments of the school band and orchestra (Bissell, 1995). Bissell (1998) explained the benefits of technology as a tool for expanding students' higher-order thinking and cognitive development, task orientation, and social skills. Bissell continued, "A music technology class is particularly effective if it motivates students to learn the basic elements of music through creative activities, and at the same time, accommodates the various levels of beginning students. (p. 37)

An alternate and innovative way to expose students to a general music curriculum is through an electronic keyboard lab. Arnett (1995) investigated and encourages teachers to implement the Music in Education (MIE) laboratory. It is a computer-assisted music instruction system manufactured by the Yamaha Corporation. One feature of this program is the assessment feature on conceptual music units. On yes-no and multiple choice test items, a human voice immediately gives individualized feedback to students.

The arrangement and configuration of class student structure is key to the facilitating of student motivation. Corley (1998) stated:

> Teaching students in a group can be effective; however, it can also prove difficult to execute. Group instruction in the music classroom is made easier through the use of an audio system such as the Korg Group Education Controller (GEC), which offers the instructor complete control over a keyboard or guitar lab through a simple user interface" (p.4).

When using and integrating the electronic keyboard synthesizers, computers, and the Korg GEC, Corley suggested using various strategies that can be applied when using the GEC: 1) lecture to individual parts of the classroom, 2) have groups of students perform together, 3) Encourage class participation with use of duet and quartet modes for student collaboration,

4) connect an audio tape and CD recorder, 5) connect individual computers, keyboard synthesizers and individual headsets with microphones for communication with the GEC.

Before the onset of music technology, it was once believed that many difficult music concepts were unattainable for students to grasp, but now interactive MIDI software lends itself to greater music achievement and more creative outlets for music students (Forest, 1995). Forest concluded, "All children do not learn the same way, and adding technology to the palette of teaching strategies is necessary to provide for all types of learning. Sound teaching strategies, used in conjunction with technology, allow for increased learning achievements" (p.35).

In regard to the future of music education and the development of student motivation and interest, it is important for music educators to consider what held opinions and beliefs students may have regarding their own experiences and exposure to the general music world. The student's perception of traditional music instruction may be perceived as boring, dry, and disconnected from today's high tech society. Furthermore, students as well as their parents and friends may also be consumers and participants within the cutting edge of today's technology. When modifying the music curriculum and instruction in light of integrating the multiple intelligences, authentic assessment and teacher feedback strategies, it could be possible that even these combined and integrated strategies may still leave students disconnected from their high tech society and culture. It may be worthy and advantageous for students to experience an infused and inoculated music curriculum of various strategies that in addition includes technology as implied by the favorable suggestions of the research literature.

Project Objectives and Processes

As a result of music classroom instruction that incorporates an integrated approach of various motivation strategies during the period of September 2000 to December 2000, the targeted seventh grade music class will increase their levels of motivation and interest resulting

in increased levels of music achievement as measured by student music portfolios containing learning logs, reflective learning journals and music achievement test(s), daily observation checklists, and student music surveys.

In order to accomplish the project objective, the following processes are necessary:

1. Students will be taught music concepts and skills through music activities
2. Base lessons on the eight multiple intelligences that will address various student learning styles.
3. Students will be taught music concepts and skills through the use of a music and technology lab containing computers, electronic keyboard synthesizers and various music education software.
4. Students will assess their music learning as well as other classmates through authentic assessment activities.
5. Positive teacher-to-student feedback will be implemented.

Project Action Plan

The action plan is to be implemented within the music classroom instruction of a singular class section of the seventh grade. Research will be conducted over a nine-week period. The seventh grade class will meet for three class periods a week, totaling twenty-seven class periods within the nine week instructional plan. The first week will be used to gather preliminary data followed by an eight-week treatment period.

I. Unit I : The Major C, F, and G Pentachords

   A. Class structure will be organized by whole-class group and music lab partners.

      1. Whole-class group will assemble daily for a brief direct introductory class lecture and discussion.

2. Students will work in and rotate between the Music In Education Lab (MIE) and the Music and Technology Lab, experiencing instruction through the use of the General Education Communicator (GEC). When rotating between the two labs every other week, students will work with a designated lab partner(s) through each unit of study.

3. Weekly instructional objectives and procedures reflect the overall (general) lesson theme of the week.

B. Strategy Procedures:

1. Multiple intelligence procedures are based on the targeted Intelligence of focus with each week of lessons. All lessons are teacher-developed.

2. Authentic Assessment procedures will include: the use of student working portfolio assessments, such as journal entries, learning log entries, self-reflections, individual goal setting, and rubric (self, teacher, and peer).

3. Technology procedures include: the use of computers that are MIDI capable and that exhibit MIDI software programs. MIDI software (composition – sequencing programs), along with the use of two labs (MIE, Music and Technology Lab with use of the GEC) will be implemented.

4. Teacher Feedback procedures include: a three column feedback sheet to be used for student-to-teacher and teacher-to-student feedback. The MIE lab will facilitate short verbal comments or phrases when students are given quizzes. Teacher instruction utilizing the GEC communicator network, will allow the teacher to give feedback to students, via the network headphones.

C. Weekly music lessons (span three class periods weekly)

1. Week I: Preliminary music activities / data collection (base-line data)

2. Week II (start of treatment period): Music and Tech Lab and GEC

a. Lesson #1 - Keyboard Exploration: Becoming familiar with the Korg X5 and X5D Synthesizers

b. Lesson #2 - Modes of the synthesizer(s): Voice sampling and experimentation - Log favorite voices

c. Lesson #3 - Picture Soundpiece: Arrange tone color voices in a musical composition

1. Objective: Familiarizing, sampling, experimenting tone colors to arrange a musical composition

2. Targeted multiple intelligence (MI) procedure: Visual/spatial - follow teacher and student charts

3. Week III: MIE Lab

   a. Lesson #4 – Read and Play Major C Pentachord

   b. Lesson #5 - Read and Play Major F Pentachord

   c. Lesson #6 – Read and Play Major G Pentachord

      1. Objective: Develop skills in music literacy

      2. Targeted MI: Bodily/kinesthetic, logical/mathematical, verbal/linguistic – movement, literacy, and reading

4. Week IV: Music and Tech Lab – GEC

   a. Lesson #7 – Music Ace (music drill software program): Partner lesson #(s) 1,2,3

   b.. Lesson #8 – Music Ace – Partner Lesson #(s) 4,5,6

   b. Lesson #9 – Video: The Piano and Technology, compare and contrast music classroom technology with music technology of nine years ago.

      1. Objective: Develop music literacy skills to incorporate with music arranging.

      2. Targeted MI: Verbal/linguistic – reading of music notation

5. Week V: MIE Lab: The C Pentachord Song Repertoire, Part I

   a. Lesson #10 – Songs: Ode to Joy and Aural Lee

   b. Lesson #11 – Songs: Grand Staff and Rock-Along

   c. Lesson #12 – Songs: Mexican Hat Dance and Rockin' Intervals

      1. Objective: Utilize music literacy skills to play and interpret musical compositions, and compose new lyrics.

      2. Targeted MI: Visual/spatial, intrapersonal, verbal/linguistic using language (lyrics) and reading

6. Week VI: Music and Tech Lab - GEC

    a. Lesson #13 – MusicShop (sequencing software program): Introduction to the program menu

    b. Lesson #14 – Recreate, record, and edit Ode to Joy and Aura Lee melodies.

    c. Lesson #15- Band in a Box (accompaniment software program): Introduce the program menu. Select appropriate and preferred accompaniment style (students' choice) for learned songs from the repertoire, Part I.

        1. Objective: Develop tech skills to facilitate music composing.

        2. Targeted MI: Interpersonal, intrapersonal, verbal/linguistic

7. Week VII: MIE Lab – The C Pentachord Song Repertoire (I, IV, V7 chords), Part II

    a. Lesson #16 – Songs: Good King Wenceslas and Jingle Bells

    b. Lesson #17 – Songs: Largo (New World) and Mary Ann

    c. Lesson #18 – Song: Saints Go Marching In

        1. Objective: Develop skill in chord acquisition and chordal accompaniment within a piece of music.

        2. Targeted MI: Logical, visual/spatial, verbal/linguistic, bodily/kinesthetic – read, interpret, and play songs

8. Week VIII: Music and Tech Lab - GEC

    a. Lesson #19 – MusicShop software program

    b. Lesson #20 – Experimenting with instrumental accompaniment tone color tracks to song repertoire of student choice selections, through using the MusicShop program.

    c. Lesson #21 - Create a multi-track accompaniment for a selected song from the student repertoire selection (student choice).

        1. Objective: Develop composition techniques that incorporate melodic and chordal reading/playing.

2. Spatial – students discuss, select, and create a track accompaniment.

9. Week IX: MIE Lab – Performance and assessment(s) of individul and partner playing with understanding of the major pentachords

   a. Day One: Open class performance of the song repertoire songs (individual/partner)

   b. Day Two: Open class performance of the song repertoire songs (individual/partner)

   c. Unit Final Exam – Major pentachords
      1. Objective: Assess attained understanding and skill of the major pentatchords.

Methods of Assessment

In assessing the success and effectiveness of the implemented intervention strategies, the researcher will re-administer the seventh grade student survey, and the use of the observation checklist. Quarter-ending grades shall also be assessed.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The problem posed by this researcher, was that of students in the seventh grade, who exhibited low levels of motivation, which consequently hindered their music achievement. The intervention of music activities based on the multiple intelligences addressing various student learning styles, technology in music, self-assessment activities, and positive teacher-to-student feedback were selected to raise the level of student motivation that would directly increase students' music achievement as a means of fulfilling this project's objective.

After the first week of preliminary data collection of the "problem evidence" as discussed in the previous chapter, the intervention period started on week two (September 6, 2000) and concluded at the end of week nine (November 3, 2000). All four strategies were integrated throughout each of the twenty-four lessons within the eight-week implementation period. Classroom music instruction was held in two separate music classrooms (the music and technology lab and the Music In Education Lab) in which the music classes would alternate between the two rooms every other week. Each of the classes lasted for approximately forty minutes in length.

Students worked with their designated lab partners through each unit section of study. Music lessons were teacher-created and/or adapted from other sources to be used in the multiple intelligence strategy. Keyboard song repertoire of traditional songs (pentachord-based melodies), were taken from a current electronic keyboard method book, then adapted into a suitable lesson format by this researcher.

The authentic assessment strategy required metacognitive skill on the part of the students. Students monitored and evaluated their own learning through self-reflection and journaling in their daily/weekly learning journals (Appendix C). Teacher observation checklists (Appendix B.01) were utilized to chart students' learning progress. Another student self-assessment, the weighted performance rubric (Appendix D), was also implemented at mid-term and end-term. Students self-assessed their own progress, while keeping all forms of self-assessment in an individual student portfolio that was submitted at the end of the term.

Students worked in individual or group discussions to share peer-feedback. Teacher praise was self-monitored by this researcher to establish positive changes in the student's motivation. Teacher-to-student feedback consisted of the instructor providing repeated written and verbal reinforcement. This was done through the three-column teacher response portion of the students' daily/weekly learning journal. (Appendix E). This was created by the researcher/instructor in effort to communicate, encourage, correct, reinforce and redirect students to improve their music learning. The GEC system (General Education Communicator, a high-tech electronic switchboard) allowed students to call upon the instructor for questions via their individual built-in microphone headset. These, as well as the collection of all written teacher comments, were forms of teacher-to-student and student-to-teacher feedback. Within the Music In Education Lab (MIE), quizzes were administered with yes/no and multiple-choice-type questions via student keyboards. Immediate verbal feedback on MIE student quiz scores results were immediately sent to each individual student via student headsets.

Aside from the technology of the GEC, all computer workstations were equipped with the Korg X5 and X5D electronic keyboard synthesizers. Music Ace (a software program consisting of music drills), MusicShop (a MIDI notation and composition program), and Band-in-a-Box (a

multi-track sequencing music composition program), were all part of the intervention strategy. The GEC for student assistance was used through individual, duet, quartet or whole-class guidance by networked headsets.

Students sampled, experimented and became familiar with numerous tone colors of the X5, X5D synthesizers, and the MIE keyboards. Students created sound-pieces (soundscape visuals) to represent sound lengths, sound layer textures, and tone color changes by charting, graphing, and/or notating sounds in a representational sound map. They then played them back on keyboards with varying tone colors and varied rhythms (patterns). Sample lessons illustrating these visual/spatial concepts can be found in Appendices F, G, and H. While following traditional music notation, students read and played three different pentatonic melodies based on the C, F, and G pentachords from the MIE curriculum. Music literacy was practiced through the logical, verbal/linguistic, and bodily/kinesthetic modes. Sample lessons are found in Appendices I, J, and K.

Music Ace allowed for practice in the reading of the music notation staff, identification and facility at the piano keyboard, and aural skills in pitch matching and identification. Music Ace assignments were completed with student partners in order to reflect the students' desire for partner/group activities. Samples of these lessons based on the musical and visual intelligence may be found in Appendices L and M. The use of a videotape lesson on the subject of music and technology extended understanding in keyboard playing, music literacy, and music composition in light of today's advances in music technology. This lesson based on the visual/spatial intelligence may be found in Appendix N.

Providing a beginning song repertoire that addressed the development of music literacy and introduction to keyboard facility, included songs that were based on the C major pentachord,

students experimented in creating new lyrics for previously learned melodies. These activities focused on the logical/mathematical, verbal/linguistic and bodily/kinesthetic intelligences. Lessons based on the reading and playing of the C major pentachords are found in Appendices O, P, and Q. Later pentachord lessons, that utilized simple I, IV, and V7 left-hand chords, were used to accompany pentachord songs as found in Appendices R, S, and T.

MusicShop was introduced to help facilitate and encourage student music composition. The recording and editing of traditional melodies from the pentachord repertoire were implemented, and students learned to record with various tone colors from the GM (General MIDI) menu. Students were encouraged to create, play, and record simple original melodies and rhythmic soundpieces on MusicShop. Later, students were given opportunities to create a multi-track accompaniment for a selected song of their choice. These interpersonal, intrapersonal, verbal/linguistic, and visual/spatial lessons are found in Appendices U, V, W, and X.

At the end of the term, during the last week of intervention, students were given the weighted performance rubric as an intrapersonal activity (Appendix D) to check for growth in their music skill. Students also played several songs of their choice that best demonstrated their achievement from the pentachord repertoire, and then performed those songs for a different partner or chose to play the songs for the entire class.

Within the nine-week period, student portfolios were reviewed by the students in order to check for completion of assignments, and then submitted to the instructor. The final music assessment (Appendix Y) was administered to assess student music achievement covering the pentachord unit. Furthermore, the seventh grade student music survey was then re-administered to each music student.

In lesson fifteen of week five (Appendix W), the music and technology Lab was experiencing computer network shutdown problems. The school site was equipped with an intranet server (building network), and was experiencing difficulty which affected student use of the lab for most of the class period. This researcher decided to bypass lesson fifteen and then introduce it toward the end of the intervention period. Students were very involved with their individual MusicShop assignments, and it appeared that it would not be advantageous to disturb the learning pace already established, especially since this particular lesson was only a one-day lesson presentation. There were no other shutdown problems reported in either of the two labs.

Presentation and Analysis of the Results

Throughout the intervention strategy, the researcher collected data through direct observation of music student behaviors. Behaviors were then recorded by utilizing the music observation checklist on student participation and effort. The purpose for this type of checklist was to generate data that measured and reflected music students' behaviors and levels of motivation by the following criteria: following-through on music activities, contributing ideas to partners or student groups, behavior levels of verbal/non-verbal communication, and success in completion of music activities.

In the week of September 13, 2000 (first week of intervention), the following observation scores revealed Activity A, keyboard exploration activity, as reflecting 100% student engagement behavior for the "follows assignment" category. In this category, the most frequent student "rating scale score" ratio comparison for Activity A was expressed as (majority number of student behavioral responses : minority number of student behavioral response) 14: 0 (100%) which indicated a "frequently" student behavioral response. In Activity A, modes of the synthesizer activity indicated 10:4 ("frequently" responding, 71.30%), and Activity C, picture

soundpiece was 9:5 ("frequently" responding, 64.29%). High levels of student engagement and motivation with following assignments remained constant through the week (Figure 1A and Appendix B.02).

Reporting on "contributes ideas to team (partners) category, Activity A indicated 14:0 ("frequently" responding, 100%); Activity B at 10:4 ("frequently" responding, 100%); and Activity C at 9:5 ("frequently" responding, 64.29%). Student responses for lesson activities on Keyboard Exploration and Modes of the Synthesizer were highly engaging for students throughout the week (Figure 1B and Appendix B.02).

On analyzing the "communicates positively category", Activity A, indicated 14:0 ("frequently" responding, 100%); Activity B at 10:4 ("frequently" responding, 85.71%); and Activity C at 9:5 ("frequently" responding). High levels of motivation and engagement increased positive communication amongst a great majority of the students throughout the week (Figure 1C and Appendix B.02).

Total score results indicated a very high level of student effort, especially of those students who were progressing. The total observation scores reported are the combined totals of the "demonstrates effort" and "demonstrates progress in effort" rating scale categories. The scores are as follows: Activity A was 100%; Activity B was 75.87%; and Activity C was 64.29%. (Figure 1D and Appendix B.02).

In the week of September 20, 2000 (second week of intervention), observation scores from lesson activities in the "follows assignment" category are as follows: Activity A, read and play C major pentachord was 9:5 ("frequently responding", 64.29%); Activity B, read and play F major activity was 9:5 ("frequently" responding, 64.29%); and Activity C, read and play G major pentachord activity was equally balanced with 35.72% ("frequently" responding) and 35.72 ("not

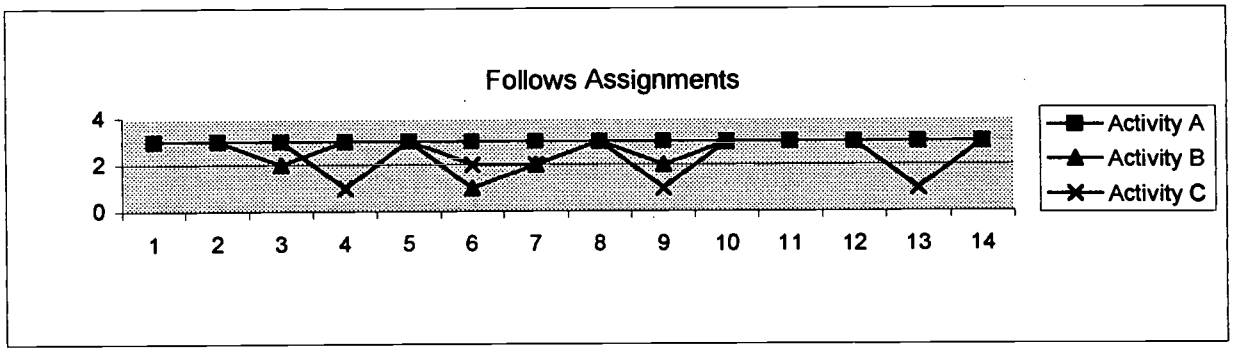


Figure 1A. Graph reflecting students' levels of following music activity assignments during the week of September 13, 2000.

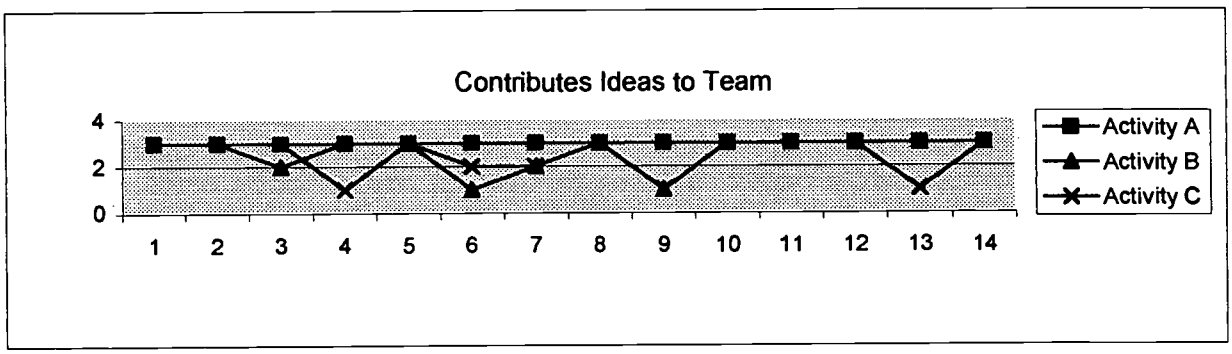


Figure 1B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of September 13, 2000.

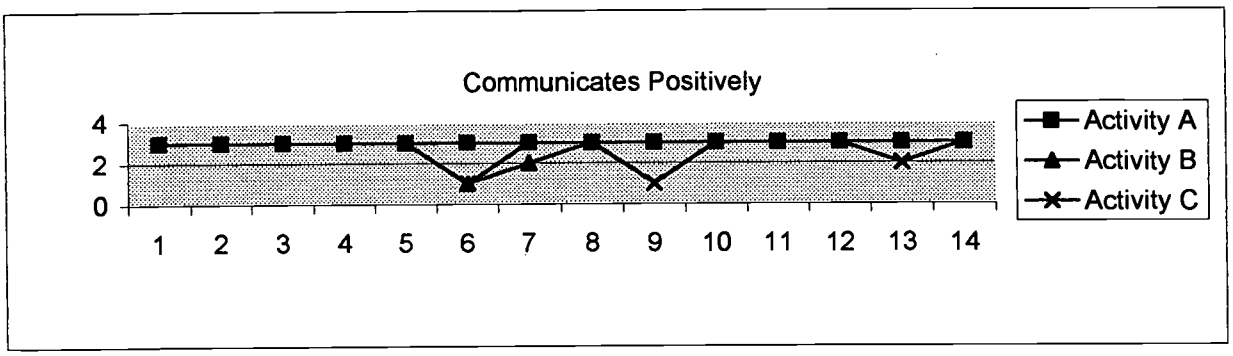


Figure 1C. Graph reflecting students' levels of positive communication during the week of September 13, 2000.

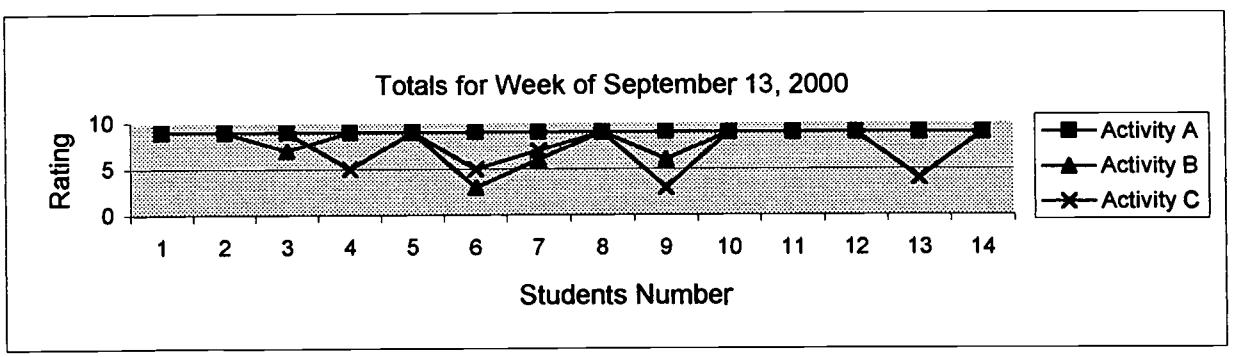


Figure 1D. Graph reflecting students' composite scores for all observation categories during the week of week of September 13, 2000.

yet"). There was reported a moderately high level of student engagement and motivation through this week (Figure 2A and Appendix B.03).

Data on "contributes ideas to team" (partners) category, Activity A, indicated 9:5 ("frequently" responding, 64.29%); Activity B was 9:5 ("frequently" responding, 64.29%); and Activity C was 6:8 ("frequently" responding, 42.86% - the larger response than the other two type responses as individual scores). High levels of motivation and positive behavioral responses continued throughout the week, but with a slight division by a small number of a group of students "not yet" contributing (Figure 2B and Appendix B.03).

Reporting on the "communicates positively category", Activity A indicated 9:5 ("frequently" responding, 64.29%); Activity B was 9:5 ("frequently" responding, 64.29%) and Activity C was 6:8 ("frequently" responding, 42.86%). High levels of communication were reported and remained steady throughout this week (Figure 2C and Appendix B.03).

Total score results indicated a very high level of student effort. Results from data demonstrated that Activity A and B were both at 100%, and Activity C was at 78.57% from the student rating scale totals which did not include the "completed task" category (Figure 2D and Appendix B.03).

In the week of September 27, 2000 (third week of intervention), observation scores from lesson activities in the "follows assignment" category are as follows: Activity A, Music Ace, partner lesson activities #1, 2, 3, was 10:4 ("frequently" responding, 71.30%); Activity B, Music Ace, lesson #4, 5, 6 was 14:0 ("frequently" responding, 100%); and Activity C, Piano and Technology (Video), was 9:5 ("frequently" responding, 64.29%). A moderate to high range of motivation to complete music assignments was indicated. Motivation remained high throughout the week (Figure 3A and Appendix B.04).

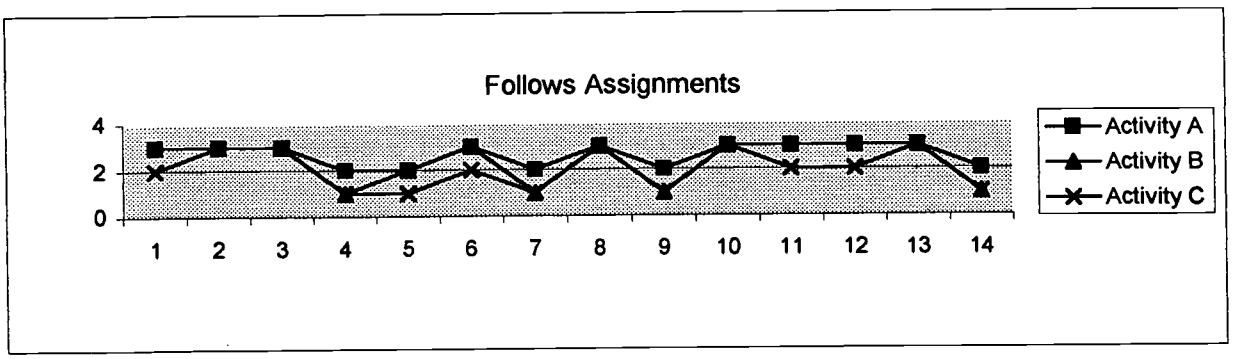


Figure 2A. Graph reflecting students' levels of following music activity assignments during the week of September 20, 2000.

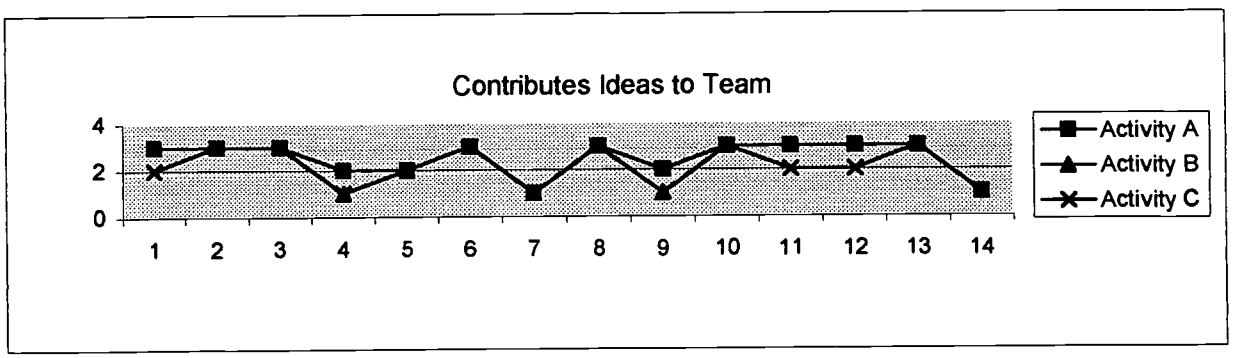


Figure 2B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of September 20, 2000.

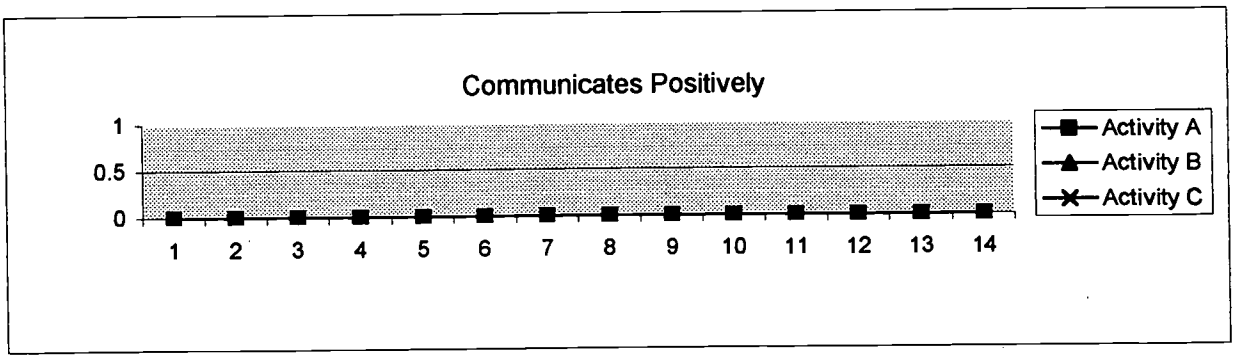


Figure 2C. Graph reflecting students' levels of positive communication during the week of September 20, 2000.

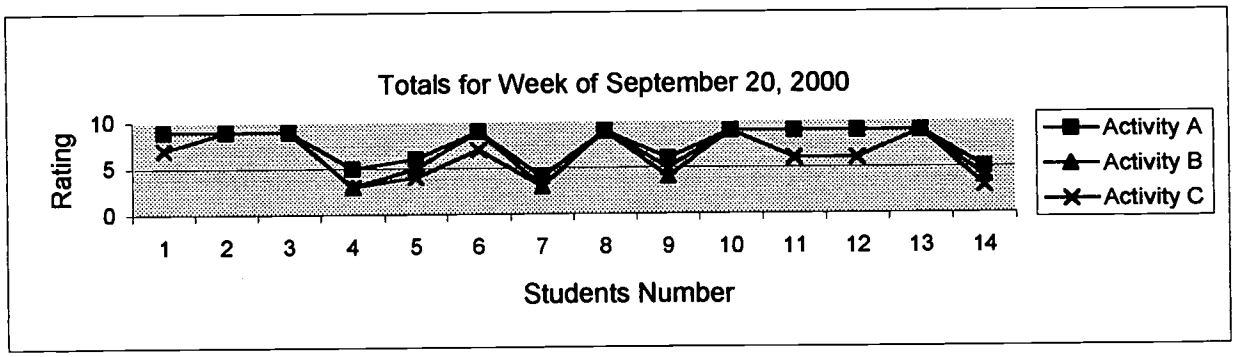


Figure 2D. Graph reflecting students' composite scores for all observation categories during the week of September 20, 2000.

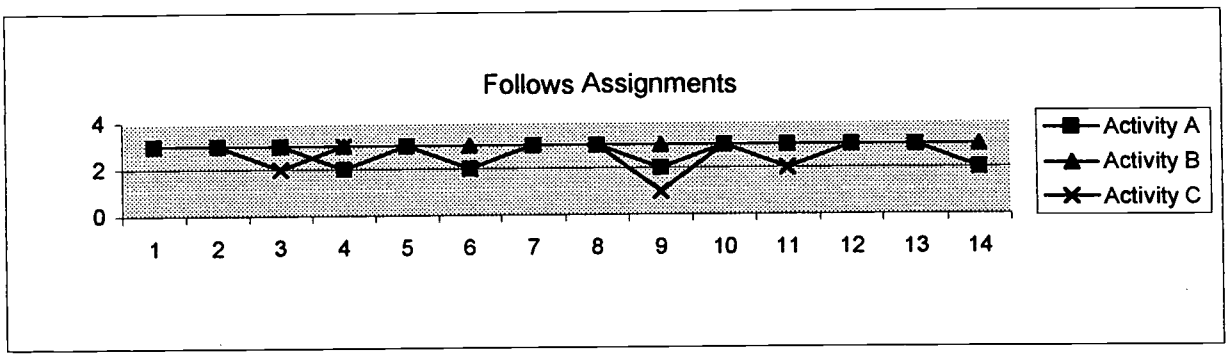


Figure 3A. Graph reflecting students' levels of following music activity assignments during the week of September 27, 2000.

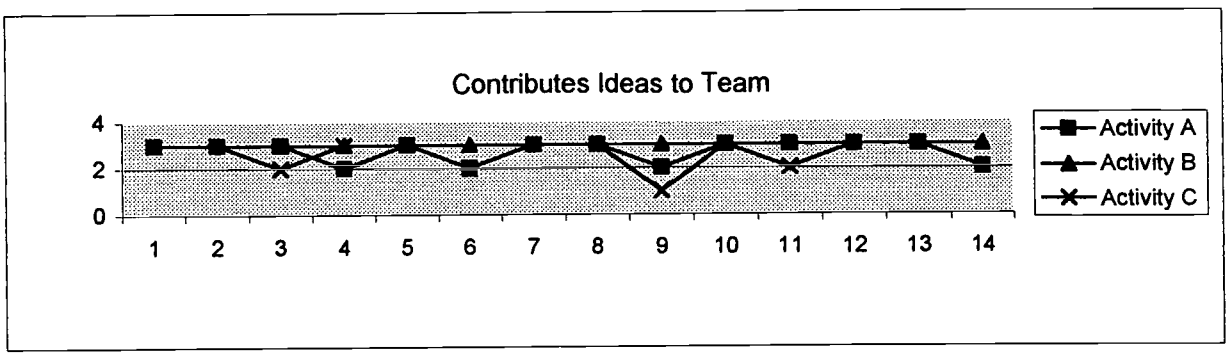


Figure 3B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of September 27, 2000.

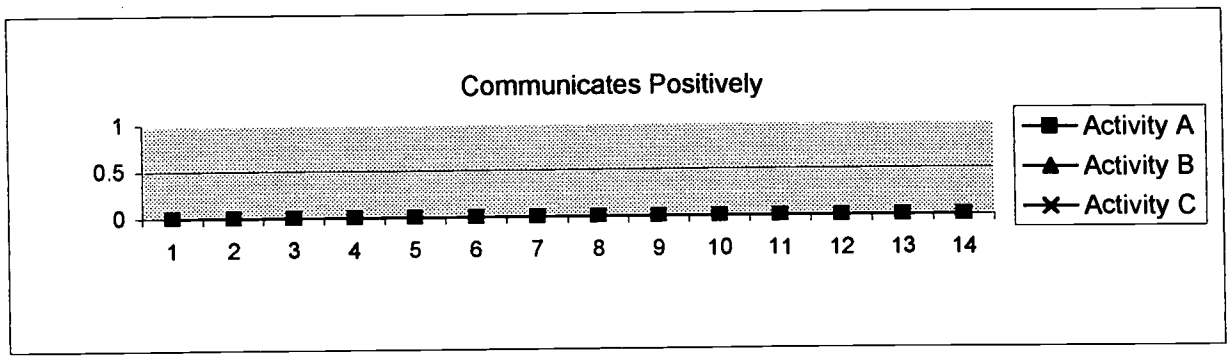


Figure 3C. Graph reflecting students' levels of positive communication during the week of September 27, 2000.

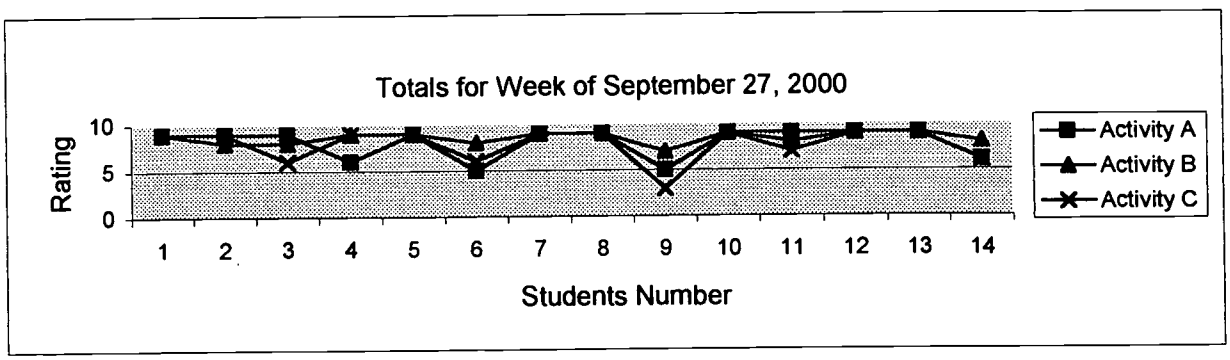


Figure 3D. Graph reflecting students' composite scores for all observation categories for the week of September 27, 2000.

Results on "contributes ideas to team" (partners) category, Activity A, indicated 10:4 ("frequently" responding, 71.30%); Activity B was 14:0 ("frequently" responding, 100%); and Activity C was 9:5 ("frequently" responding, 64.29). A moderate to high range of contribution to class and partner groups was present (Figure 3B and Appendix B.04).

Data on "communicates positively" category, revealed that Activity A was 10:4 ("frequently" responding, 71.30%); Activity B was 9:5 ("frequently" responding, 64.29%); and Activity C was 10:4 ("frequently" responding, 71.30%). Moderately high levels of positive behavioral responses continued throughout the week (Figure 3C and Appendix B.04).

Total score results indicated an extremely high level of positive classroom behavior and motivation through experimenting with music technology. Score results revealed that both Activities A and B were both at the 100% level of interest and motivation, while Activity C remained moderately high at 85.71%. Student responses reflecting learning experiences in the Music and Tech Lab revealed extremely high levels of engagement (Figure 3D and Appendix B.04).

In the week of October 4, 2000 (fourth week of intervention), observation scores from lesson activities in the "follows assignment" category are as follows: within the C pentachord, song repertoire (part I), Activity A, Ode to Joy and Aura Lee was 10:3 ("frequently" responding, 71.30%); Activity B, Songs: Grand Staff and Rock-A-Long was 7:5 ("frequently" responding, 58.33); and Activity C, Songs: Mexican Hat Dance and Rockin' Intervals) was 5:8 ("sometimes" responding, 38.46). Two students were absent within the week, and high levels of motivation dropped gradually throughout the week's activities (Figure 4A and Appendix B.05).

Results on "contributes ideas to team" (partners) category, Activity A indicated 10:3 ("frequently" responding, 76.92%); Activity B was 8:4 ("frequently" responding, 66.67%); and

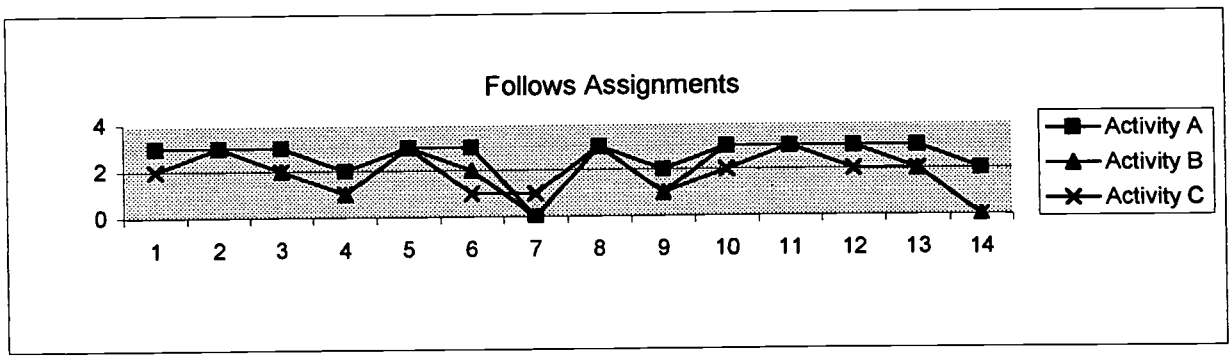


Figure 4A. Graph reflecting students' levels of following music activity assignments during the week of October 4, 2000.

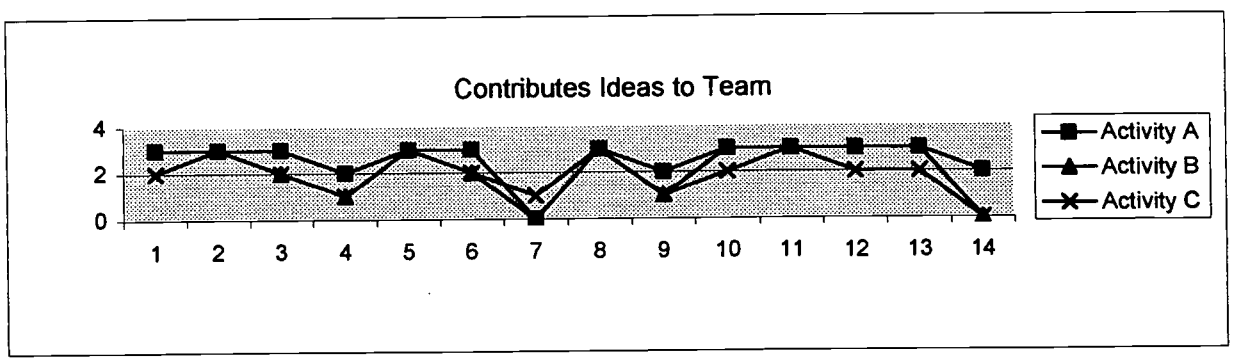


Figure 4B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of October 4, 2000.

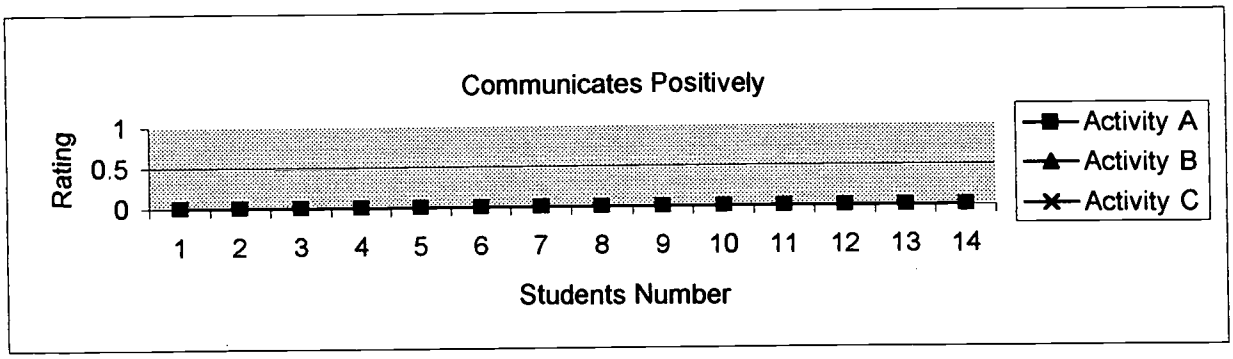


Figure 4C. Graph reflecting students' levels of positive communication during the week of October 4, 2000.

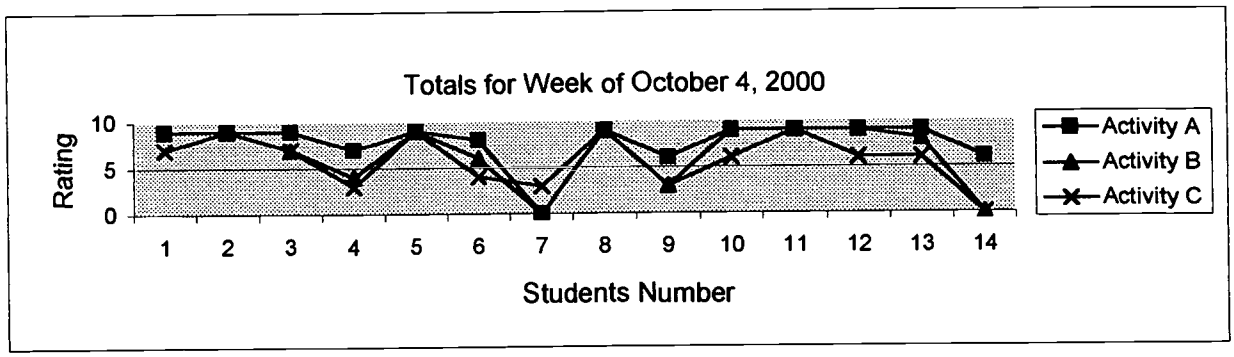


Figure 4D. Graph reflecting students' composite scores for all observation categories during the week of October 4, 2000.

Activity C was 6:7 ("sometimes" responding, 46.15). A moderate to high range of contribution to class and partner groups was present (Figure 4B and Appendix B.05).

Data on "communicates positively" category, revealed Activity A at 10:3 ("frequently" responding, 76.92%); Activity B at 9:3 ("frequently" responding, 75.00%); and Activity C, 6:7 ("frequently" responding, 46.15%). Moderately high levels of positive behavioral responses continued throughout the week (Figure 4C and Appendix B.05).

Total score results indicated an extremely high level of engagement with playing of pentachord melodies on keyboards. Classroom behaviors in terms of student interest and motivation remained steadily positive. Score results revealed that Activity A was 100%; Activity B was 91.67%; and Activity C was 76.92%. Scores showed that students had demonstrated much effort at the beginning of the week and then slightly tapered–off at the end of the week (Figure 4D and Appendix B.05).

In the week of October 11, 2000 (fifth week of intervention), observation scores from lesson activities in the "follows assignments" category are as follows: Activity A, MusicShop (intro) activity was 10:4 ("frequently" responding, 71:30%) and Activity B, recreate, record, edit on MusicShop, Ode to Joy and Aura Lee activity songs were 5:9 ("sometimes" responding, 50%). Activity C, Band-in-a-Box, was not implemented because of shutdown problems within the music and tech lab as discussed previously in the historical background of the intervention. Moderate to very high levels of motivation and very positive to average behavioral responses prevailed throughout the week (Figure 5A and Appendix B.06).

For the category results on "contributes ideas to team" (partners), Activity A indicated 9:5 ("frequently" responding, 64.29%) and Activity B at 7:7 ("sometimes" responding, 50%). This is the first major, significant drop in this category alone since the intervention period

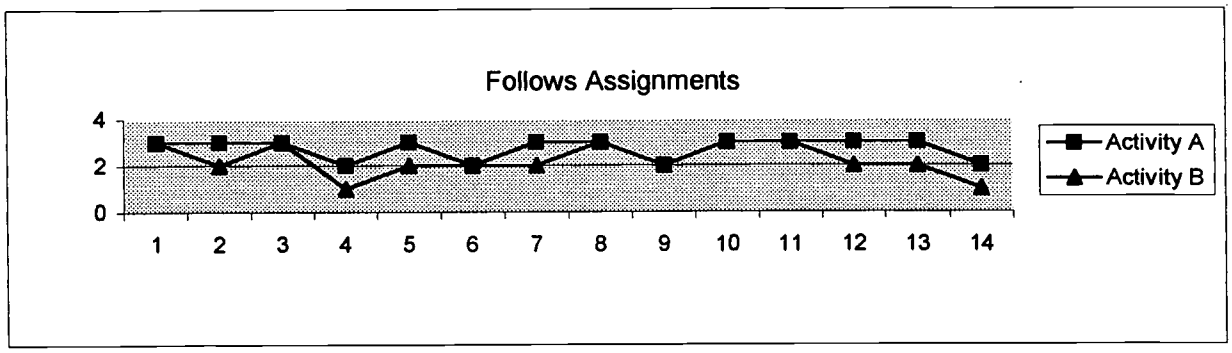


Figure 5A. Graph reflecting students' levels of following music activity assignments during the week of October 11, 2000.

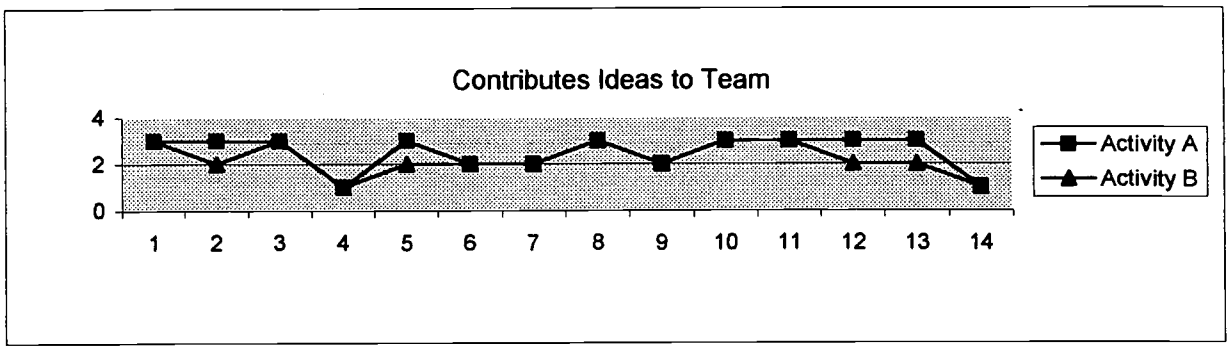


Figure 5B. Graph reflecting students' levels of contributing ideas to team (partners) during the weekof October 11, 2000.

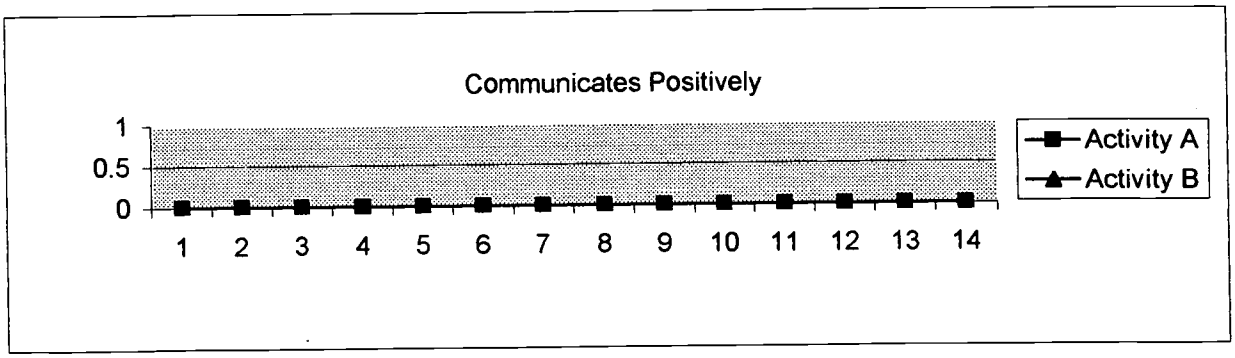


Figure 5C. Graph reflecting students' levels of positive communication during the week of October 11, 2000.

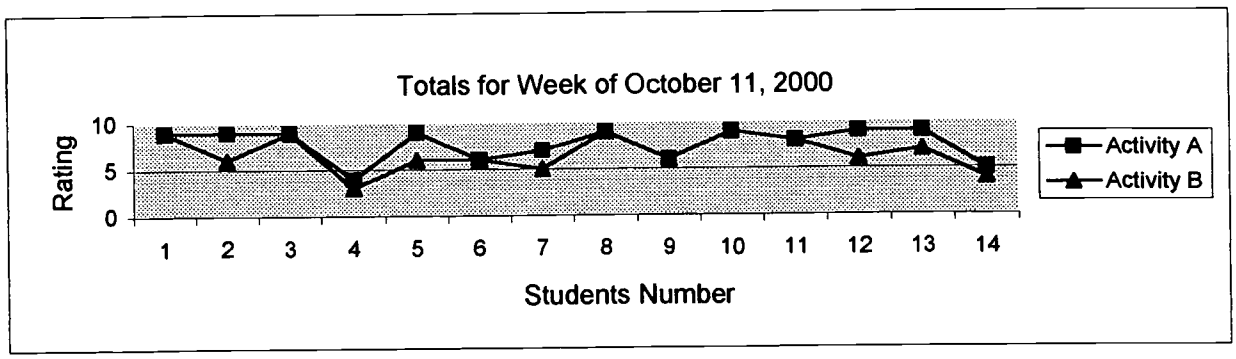


Figure 5D. Graph reflecting students' composite scores for all observation catgories during the week of October 11, 2000.

started. There has been a trend of a very moderate to moderately high range in the past several weeks, and now there has emerged, incrementally, a very moderate (or average) level of student motivation and interest here (Figure 5B and Appendix B.06).

Within the "communicates positively" category, Activity A indicated 8:6 ("frequently" responding, 57.14%) and Activity B was 7:7 ("frequently" responding, 50.00%). Average to moderately high behavioral responses indicated possible attitude and interest changes throughout this week (Figure 5C and Appendix B.06). Total score results revealed that both Activities A and B combined were at 92.86% level of effort, but did not indicate continual progression of effort (Figure 5D and Appendix B.06).

In the week of October 18, 2000 (sixth week of intervention), observation scores from lesson activities in the "following assignment" category are as follows: Activity A and C pentachord song repertoire (chords I, IV, V7), Part II, Good King Wenceslas (song) were 6:7 ("frequently" responding, 42.86%); Activity B, Largo and Mary Ann (song) were at 6:8 for both ("sometimes" and "not yet" responding, 46.15%); and for Activity C, When the Saints Go Marching (song), 8:4 ("not yet" responding, 66.67%). Students following music assignments significantly dropped from the previous week, especially in Activity C. (Figure 6A and Appendix B.07).

Results on "contributes ideas to team" (partners) category, Activity A indicated 7:7 ("sometimes" responding, 50.00%); Activity B was 6:6 ("sometimes" and "not yet" responding, 46.15%); and Activity C was 8:4 ("frequently" responding, 66.67%). A moderate to high range of contribution to class and partner groups was present. (Figure 6B and Appendix B.07).

Data on "communicates positively" category, revealed that Activity A indicated 7:7 ("sometimes" responding, 50.00%); Activity B at 6:8 ("frequently" responding, 46.15%); and

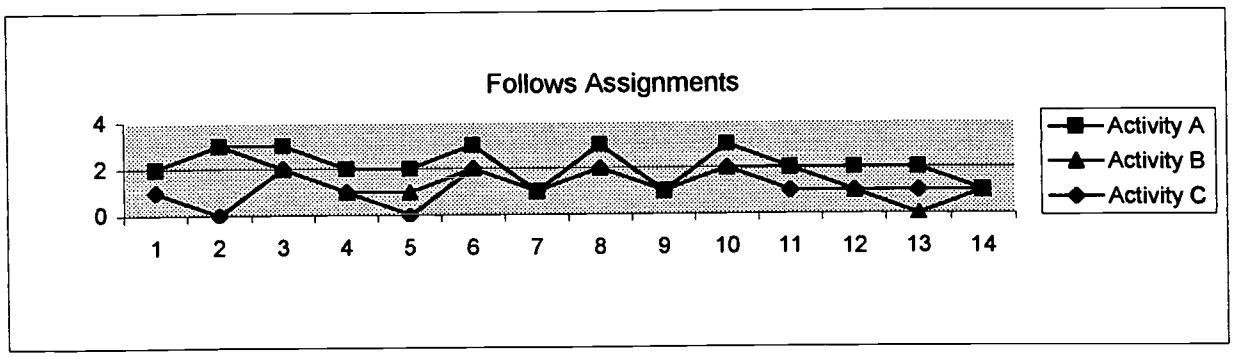


Figure 6A. Graph reflecting students' levels of following music activity assignments during the week of October 18, 2000.

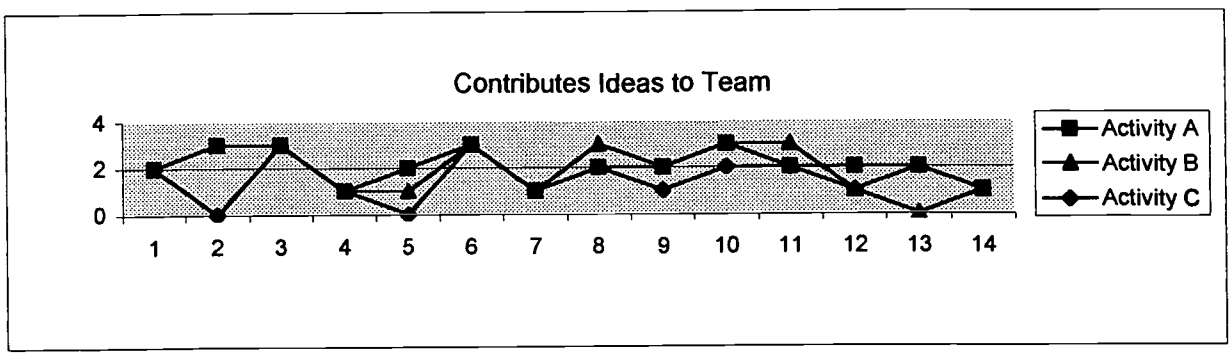


Figure 6B. Graph reflecting students' levels of contributing ideas to team (~~partners~~) during the week of October 18, 2000.

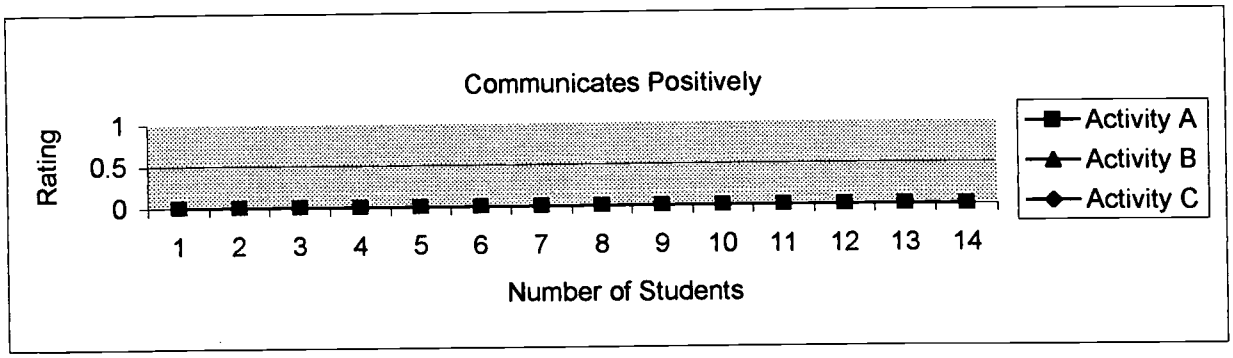


Figure 6C. Graph reflecting students' levels of positive communication during the week of October 18, 2000.

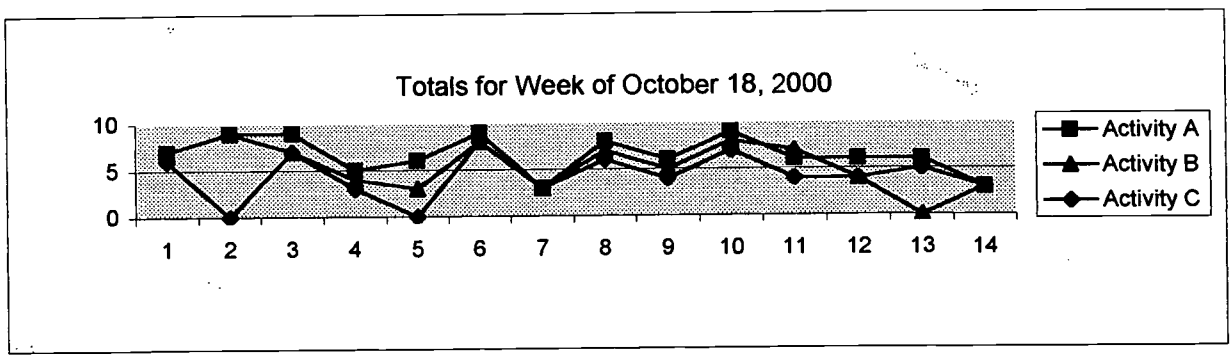


Figure 6D. Graph reflecting students' composite scores for all observation categories during the week of October 18, 2000.

Activity C, 6:6 ("frequently" responding, 50.00%). Moderately high levels of positive behavioral responses continued throughout the week (Figure 6C and Appendix B.07).

Total score results indicated moderately high to moderate (average) levels of student effort and motivation. Reported student effort scores are as follows: Activity A was 85.71%; Activity B was 76.92% and Activity C was 75.00%. There were three absences throughout the week (Figure 6D and Appendix B.07).

In the week of October 25, 2000 (seventh week of intervention), observation scores from lesson activities in the "follows assignment" category are as follows: Activity A, MusicShop (continued from lesson #13) was 8:6 ("frequently" responding," 46.15 %); Activity B, experiment with instrumental accompaniment (tone colors), was 7:6 ("frequently" responding, 53.85%); and Activity C, create a multi-track accompaniment from selected song repertoire, was 6:8 ("frequently" responding, 42.86%). High levels of motivation returned to students in the first two activities of the week. Students once again engaged with the technology component of music class, but the third activity on creating an accompaniment for a song dropped considerably by 32% (Figure 7A and Appendix B.08).

Results on "contributes ideas to team" (partners) category, Activity A indicated 8:5 ("sometimes" responding, 69.23%); Activity B at 6:7 ("sometimes" responding, 46.15%); and Activity C was 8:6 ("frequently" responding, 57.14). A moderate to high range of contribution to class and partner groups was present (Figure 7B and Appendix B.08).

Data on the "communicates positively" category, revealed that Activity A was 7:6 ("frequently" responding, 53.85%); Activity B was 7:6 ("frequently" responding, 53.85%); and Activity C, 9:5 ("frequently" responding, 64.29%). High to moderate levels of positive behavioral responses continued throughout the week (Figure 7C and Appendix B.08).

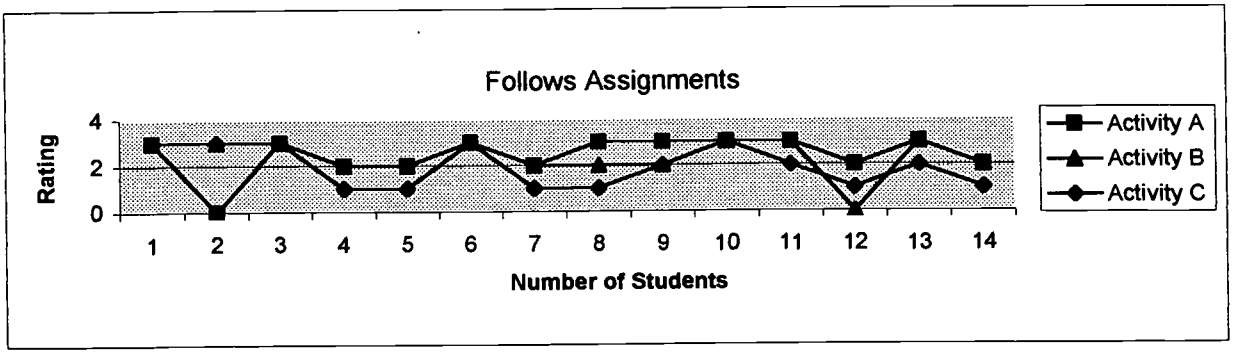


Figure 7A. Graph reflecting students' levels of following music activity assignments during the week of October 25, 2000.

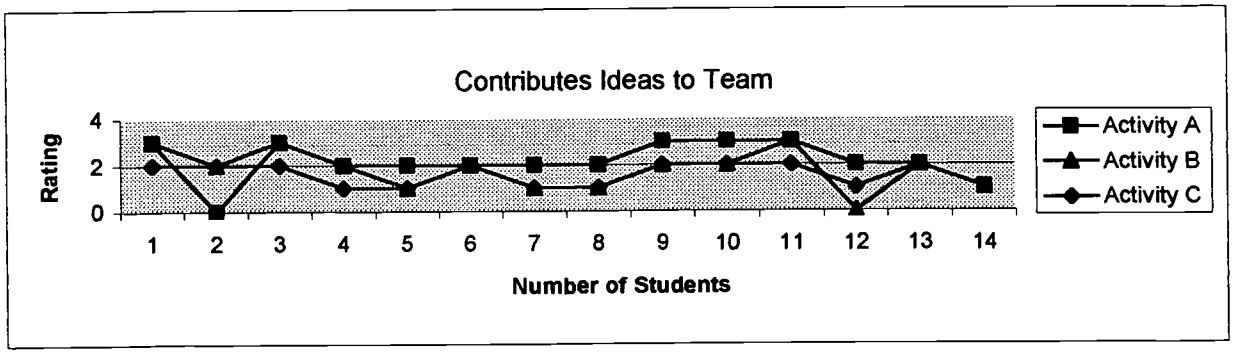


Figure 7B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of October 25, 2000.

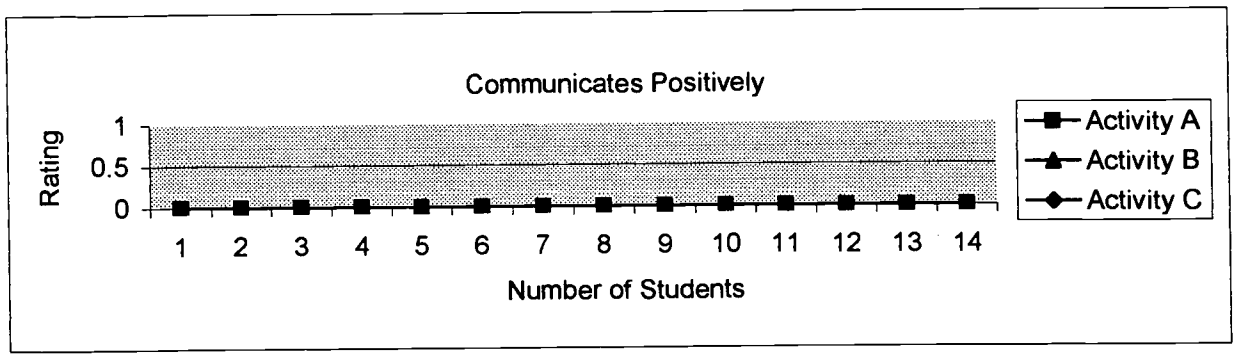


Figure 7C. Graph reflecting students' levels of positive communication during the week of October 25, 2000.

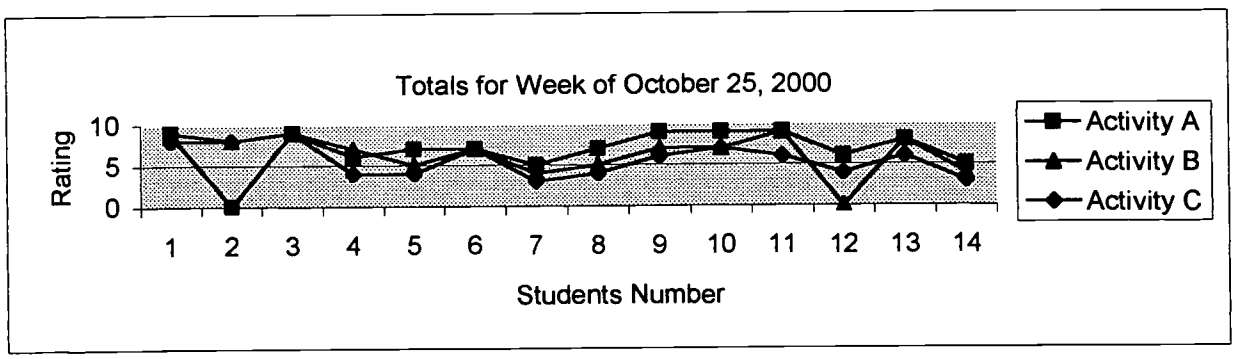


Figure 7D. Graph reflecting students' composite scores for all observation categories during the week of October 25, 2000.

Total score results for the week indicated that both Activities A and B were within the range of 100% level of effort, and Activity C was at 85.71%. Motivation in terms of progressing effort was apparent (Figure 7D and Appendix B.08).

In the week of November 1, 2000 (eighth week of intervention), observation scores from lesson activities in the "follows assignment" category are as follows: open class keyboard performance of repertoire songs activity was 0:4 ("sometimes" and "not yet," responding 71.30%). Activity B, open class keyboard performance of song repertoire (individual/partner) activity, was at 10:4 ("sometimes" and "not yet" responding," 71.30%). Activity C, unit final exam on pentachords was not observed or scored onto music observation checklists (Figure 8A and Appendix B.09). Moderate levels of positive behavioral responses or motivation was observed. According to this researcher's log entries, some students appeared nervous to play for the class or even for their individual partner groups.

Reporting on "contributes ideas to team" (partners) category, Activity A indicated 9:5 ("frequently" responding, 64.29%); Activity B was 9:5 ("frequently" responding, 64.29%); and Activity C was 11:3 ("frequently" responding, 78.57%). Both high and low levels of student input were reported. One-third of the class scores was in the low, "not yet" category (Figure 8B and Appendix B.09).

Reporting on the "communicates positively" category, Activity A indicated 8:6 ("frequently" responding, 57.14%); and Activity B was also 8:6 ("frequently" responding, 57.14%). Like Activity A, there was no indication of student behaviors at the moderate or average level for student behavior (Figure 8C and Appendix B.09). Score totals also revealed that for Activity A (64.29%) and Activity B (71.30%), there is a low to moderately low group who demonstrated low effort (Figure 8D and Appendix B.09).

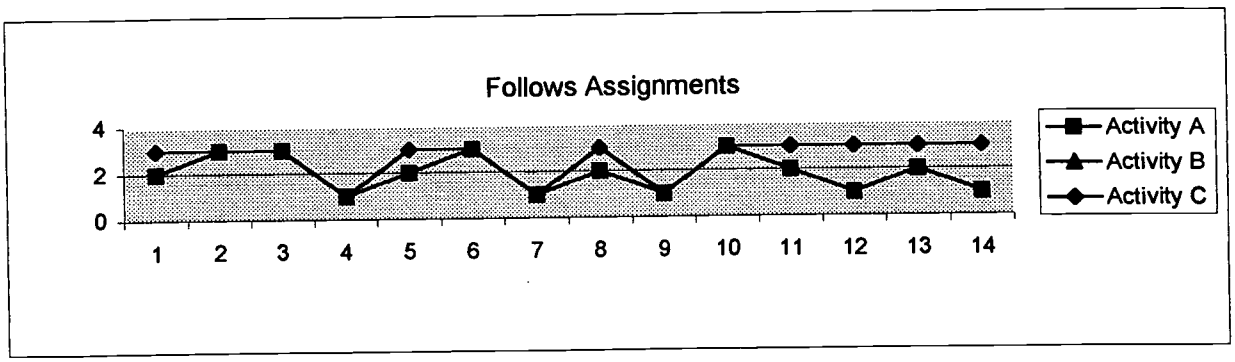


Figure 8A. Graph reflecting students' levels of following music activity assignments during the week of November 1, 2000.

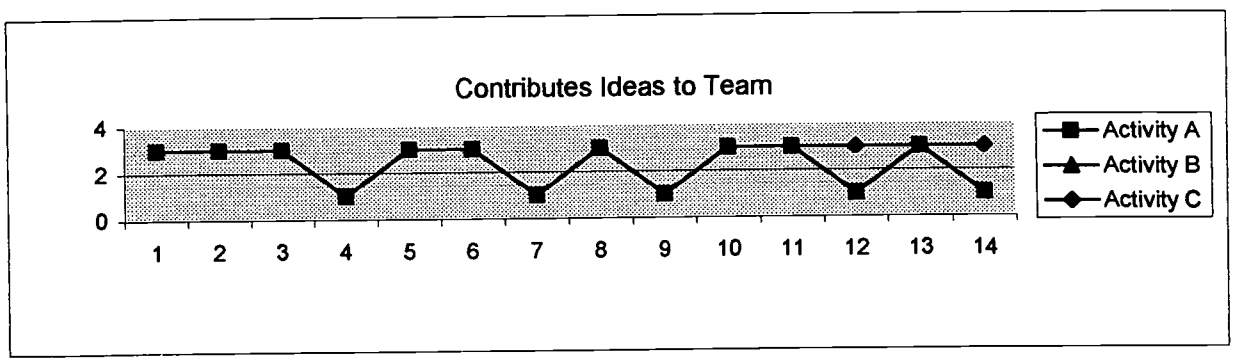


Figure 8B. Graph reflecting students' levels of contributing ideas to team (partners) during the week of November 1, 2000.

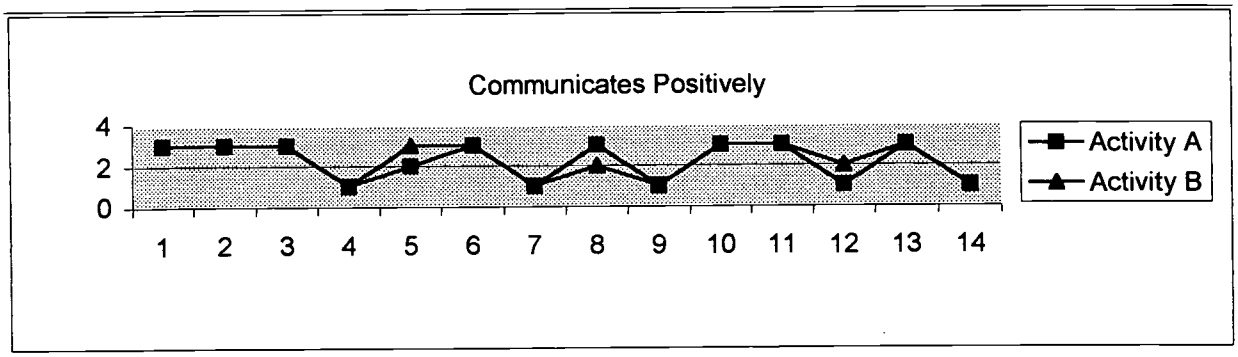


Figure 8C. Graph reflecting students' levels of positive communication during the week of November 1, 2000.

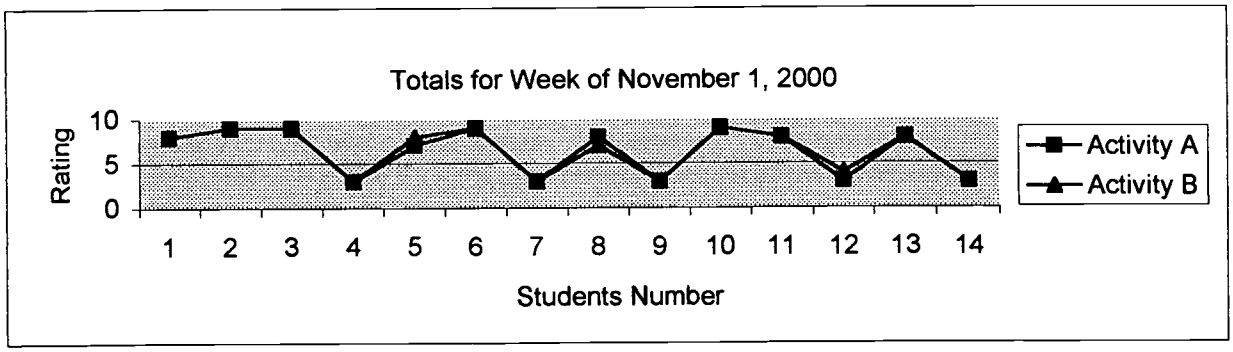


Figure 8D. Graph reflecting students' composite scores for all observation categories during the week of November 1, 2000.

Regarding the completion of music activities from the teacher observation checklist(s) portion, percentages of students completing activities are as follows: week of September 13, 2000, Activity A (keyboard exploration activity) was 100%; Activity B (modes of the synthesizer activity) was 78.57 %; and Activity C (picture soundpiece) was 78.57%. Students' numbers six and nine demonstrated difficulty in completing music assignments (Appendix B.10).

For the week of September 20, 2000, Activity A (read and play C major pentachord) was 78.57%; Activity B (read and play F major pentachord) was 64.29%; and Activity C (read and play G major pentachord) was 64.29% for the total completion of activities. Students' numbers four, five and nine experienced difficulties throughout the week with the completion of assignments (Appendix B.10).

In the week of September 27, 2000, Activity A (Music Ace, partner lesson activities #1, 2, and 3) was 92.86%; Activity B (Music Ace, lesson #4, 5, and 6) was 100%; and Activity C (Piano and Technology, Video) was 92.86% for total completion of activities. Student number nine continued to struggle with completing music activities (Appendix B.10).

During the week of October 4, 2000, Activity A (songs: Ode to Joy and Aura Lee) was 100%; Activity B (Songs: Grand Staff and Rock-A-Long) was 83.33%; and Activity C (Songs: Mexican Hat Dance and Rockin' Intervals) was 66.67% for the total completion of activities. Students four and nine had reoccurring problems with completing music assigned tasks (Appendix B.10).

Throughout the week of October 11, 2000, Activity A (MusicShop, intro) was 85.71%, and Activity B (recreate, record, and edit on MusicShop, Ode to Joy and Aura Lee) was 78.57% for the total completion of activities. Student numbers four and fourteen experienced difficulties with completing the week's assignments (Appendix B.11).

In the week of October 18, 2000, Activity A (C pentachord song repertoire chords I, IV, V7, part two- Good King Wenceslas, song) was 78.57%; Activity B (Largo and Mary Ann, song) was 57.14%; Activity C (When the Saints Go Marching) was 41.67% for the week's total on activity completion. Students experiencing difficulties throughout the week were students' numbers five, seven, eight, and fourteen (Appendix B.11).

Reporting the week of October 25, 2000, Activity A (MusicShop, a continued lesson) was 71.30%, and Activity B (experiment with instrumental accompaniment and tone colors) was 71.30% for the week's total music activity completion. Students four, seven, nine, and twelve did struggle with completing performance activities (Appendix B.11).

An overall view of the intervention period indicated that the weeks of September 20th, October 18th and 25th, and November 1st highlighted significant data for student difficulties in completing music assignments (Appendix B.11). The frequency of students not completing assignments throughout the eight week intervention period was 52.50% (student number four); 40.00% (student number seven); 75.00% (student number nine); and 40.00% (student number fourteen). These student percentages expressed a non-passing grade for completing music assignments. The percentage of total music students not passing in the "completed task" category was 28.57%.

Reviewing written entries from the students' daily/weekly reflective learning journals indicated that entries from the earlier part of the intervention period demonstrated more quality and length in writing content. Throughout the study, entries became shorter, but more specific in response to reflecting students' personal opinions and learning experiences. Furthermore, there were an increasing number of entries throughout the intervention that were missing. From a total

Table 1.

Inventory Totals of Combined Student Responses from Daily/Weekly Student Reflective Learning Journals (Part IIA) Addressing Music Activities, September 13, 2000 through November 3, 2000.

Reflective Statements	Number of Responses
Positive Experiences	
Expresses a preference in music software	8
Enjoys various tone colors of synthesizers	12
Indicates success at playing	7
Enjoys progressive learning	3
Finds partner/group music activities enjoyable	16
Likes recording music compositions on music software	24
Expresses preferences in music styles	9
Enjoys practice of keyboard exercises	6
Expresses that music is fun	17
Enjoys movement activities	37
Likes creating melodies	8
Enjoys experimenting with tone colors on synthesizers	40
Negative Experiences	
Expresses difficulty playing the synthesizer	8
Difficulty using synthesizers	4
Indicates difficulty in playing with both hands	19
Reveals high levels of general frustration	5
Annoyance with computer shutdowns/delays	8
Difficulty remembering music terminology/notation	6
Indicates dislike of working with groups/partners	5

of two hundred and forty-two written entries, the reflecting ratio of positive to negative student experiences was 187:55 (Table 1).

Similarly to the written entry sections of the daily/weekly reflective journals, student circled responses from "share your feelings" (response portion) became increasingly fewer. Most students circled responses that matched and reflected their written journal entries demonstrating their understanding and performance of music concepts for each day, while some students did not. Students who circled responses such as "no problem here" or "a little help and I'm fine," did follow-through by writing a brief question or comment expressing their difficulty with the day's activities. Some written student questions or comments did not necessarily pertain exclusively to music lessons, but sometimes addressed other student behaviors such as interruptions by other classmates that indirectly affected the students who made the journal entries (Table 2).

In the teacher feedback portion (Part II B) of the daily/weekly learning journal, teacher's suggestions/answers were given to students when returning to music class each day. Teacher-to-student responses were given in a positive written dialogue and most responses referred students to their music texts or instructor for direct instruction. Some of the teacher responses were found repetitive, but effectively encouraged students to continue in overcoming their difficulties as student-feedback comments reported positively.

In written entries within the "summary of key learning points" portion, student responses consisted of very brief, outline-type statements. Most students reported accurate listings of learned concepts and sometimes needed the instructor to help review the day's music concepts or activities. Some student left this portion blank, indicating probable confusion, disinterest, or passive behavior.

Table 2.

Results of Student Responses from the "Share Your Feelings" portion of the Daily/Weekly Reflective Learning Journal (Part IIA), September 13, 2000 through November 3, 2000.

Students Response	Number of Student Responses
No problem here!	140
I am lost, help!	37
A little help and I'm fine.	52

Teacher logs indicate that 85.71% of students completed the piano and technology lesson. A class discussion on how the student's Music andTechnology Lab appears and functions similarly to that of the music and technology within the video was brought up by students. Students did make connections as to how the field of music and technology has progressed within just a few years after the video was produced. Two students verbally expressed how they would like to record their own keyboard playing on a computer.

The lesson, picture soundpiece, was also very successful. Students did enjoy the hands-on creation of a sound graph that illustrated the horizontal and vertical movement of sound. When students were asked, "What aspects of this activity did you enjoy?", students expressed that they enjoyed working within a group because this allowed for more creative thought and expression from the whole group. Observations revealed that some students exchanged assigned roles to better suit the natural talents of certain students in the group.

MusicAce lessons (numbers one through six) were found extremely engaging for students. The following percentages demonstrated student success in completion of music assignments: introduction to the staff, introduction of the piano keyboard, playing with pitch, "ABC's" of the piano keyboard were 100% completed; and more piano key "ABC's" and "ABC" of the treble staff were 92.86% completed. Four students progressed on to two other lessons not within the action plan. The "ABC's" of the bass staff and above the bass staff were supplementary drill/lessons assigned to those students who rapidly progressed. Though the majority of students were very successful in understanding of music concepts presented in the lessons, a few students needed more time to complete lessons as the lessons progressed.

In the MusicShop lesson activities, students found the introduction (learning of menu and editing operations) to be very engaging. Teacher logs indicated that students enjoyed following, repeating, and practicing the instructor's steps with the edit operations as shown on the overhead projection screen via the LCD Pad. Students practiced with partners or individually while editing a pre-composed song file. Students spent more time (students' choice) manipulating with the "patch selector" (a listing of one hundred and twenty different tone colors), the "transport selectors" (play, stop, continue, skip, forward and back), metronome, and graphic displays (a horizontal view of each melody's starting point, sound length, and vertical layering of pitches). On the second day with students working on MusicShop, students played and recorded two songs from their pentachord song repertoire (Ode to Joy and and Aura Lee). Eleven of the students (78.57%) were successful in completion of playing and recording their songs.

Within the daily learning logs (Part I), students started off their learning of the pentachord repertoire songs at 100% completion and then throughout the intervention, a downward trend prevailed and the level of song completion dropped drastically by 79% (end of

Table 3.

Daily/Weekly Learning Log Reflecting the Number of Students Completing Song Repertoire Selections (Part I), November 3, 2000.

Song	Number of Students Completing Song Selection	Percentage of Class
1	14	100%
2	14	100%
3	14	100%
4	12	86%
5	11	79%
6	1	7%
7	8	57%
8	13	93%
9	6	43%
10	4	29%
11	3	21%

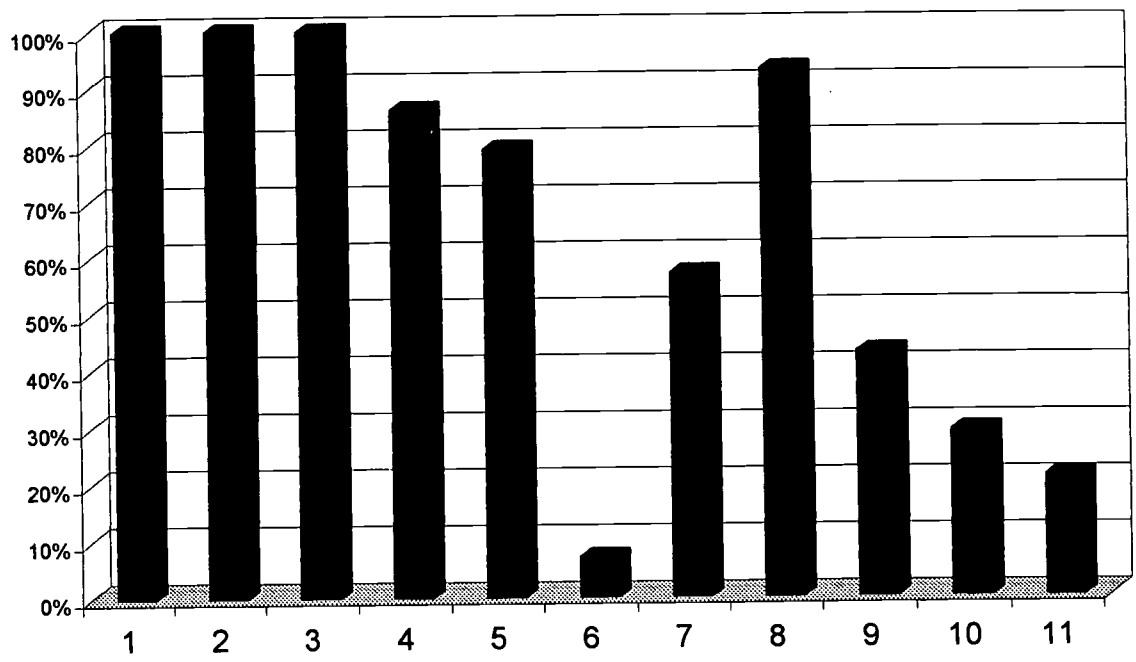


Figure 9. Graph reflecting student percentage of completed repertoire songs.

intervention). Students recorded the number of periods it took them to master songs and it was found that most of the students took at least two class periods to master a single song, especially the songs that entailed both hands and reading of both treble and bass clefs. There were higher levels of participation in partner groups than with individual student groups. For the most part, partners were very encouraging to one another and enjoyed playing with their partners (Table 3).

The results of the weighted rubric scale activity (self-assessments) drawn from the last two days of open class performances reported that students perceived their own level of music skills at a very high level. Self-student ratings reported an average total score of 87.07% on total achievement within the major pentachord unit. Music skills of both "beat and rhythm awareness" and "playing the keyboard with creativity" were skills rated as the highest of the four skill categories, where as "music literacy" and "develop finger and hand technique" were rated as lower by the students (Table 4).

Final portfolio grades based on quality and completion of work (a collection student's reflection writing, journal entering, and all other computer, keyboard, and miscellaneous assignments) were discussed individually with each student over the last two days of the school's first grading quarter. The following percentage of students earned the following grades: 35.71%, A's; 28.57%, B's; 14.29%, C's; and 21.43%, D's. There are no failing grades reported (Table 5).

Final exam scores on the pentachord unit indicated a broader distribution of music grades. There was a closer correlation of final exam grades to that of the instructor/researcher's observation checklists. The following number of students earned the following grades: one student, A; three students, B's; four students, C's; two students, D's; and four students, F's. There was a 28.57% difference in students with passing grades in the portfolio presentation as compared to those who failed the final exam (Table 6).

Table 4.

Weighted Performance Rubric Scale (Self-Assessment) Reflecting

Student Achievement of Pentachord Unit, November 2, 2000.

Student	Music Literacy	Beat & Rhythm Awareness	Develop Finger & Hand Technique	Play Keyboard with Creativity	Total Score
1	15	42	10	13	80
2	21	42	10	9	82
3	21	42	10	13	87
4	30	45	10	14	99
5	18	36	6	10	70
6	24	39	8	12	83
7	21	42	5	5	73
8	30	42	10	13	95
9	27	39	10	13	89
10	30	40	10	15	95
11	21	42	6	13	82
12	15	39	10	13	87
13	30	42	10	15	97
14	30	45	10	15	100

Key

Skill Category	Total Possible Points
Music Literacy	30
Beat & Rhythm Awareness	45
Develop Finger & Hand Technique	10
Play Keyboard with Creativity	15

Table 5.

Final Portfolio Grades, November 3, 2000.

Student	Final Grade
1	A
2	A
3	A
4	D
5	B
6	B
7	C-
8	A+
9	D
10	B+
11	D+
12	A
13	B+
14	C-

Key
A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = 59 and below

Table 6.

Final Exam on Pentachord Unit, November 3, 2000.

Student	Final Score
1	68%
2	84%
3	87%
4	54%
5	76%
6	78%
7	43%
8	100%
9	87%
10	78%
11	54%
12	72%
13	61%
14	58%

Key
A = 90 - 100
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = 59 and below

Final music assessment scores for the first quarter term reflected all work done throughout the entire quarter. This included all lesson activities within the preliminary data collection and practice of journal-entering period (weeks one and two), and the intervention period (eight weeks). The final music assessment reported no failing or fair marks in music achievement as indicated in the final exam grades. Student "effort scores" were very high and ranged in a passing category of 92.86%. The student portfolio (with all completed class assignments) accounted for 80% of the final music assessment scores (Table 7 and Figure 11).

The seventh grade student music survey was re-administered to the students on the last day of the quarter. Survey results are expressed in combination totals of the "agree" and "strongly agree" categories and combination totals of the "disagree" and "strongly disagree" categories. The "no opinion" category was eliminated in the re-administering of the survey to insure some positive or negative student responses. The results of the re-administered survey are as follows: In item questions three and nine, students responded extremely in favor of having a desire to acquire new music skills (92.86%, combined total). Student response raised 21.43 percent from the preliminary survey, which also demonstrated a high shift from the "no opinion" category. Scores on students' preferences and enjoyment with studying and listening to different musical styles in question ten, were found at 92.86 percent (combined total agreement), an extremely high shift of 42.86 percent from the preliminary survey. In item question six, student's enjoyment had increased; reflecting 100% of students listening to music outside of school as a favorite leisure activity (14.29% increase from the preliminary survey). According to question seven, students held a moderate agreement of the experimentation of electronic keyboard synthesizers, indicating that this would possibly encourage the students to pursue band instruments in high school. There was an extreme shift in that opinion from the preliminary

Table 7.

Final Quarterly Music Assessment Scores, November 3, 2000.

Ratings	Grades	Achievement	Effort
Excellent	A	35.71%	35.71%
Very Good	B	28.57%	42.86%
Good	C	35.71%	14.29%
Fair	D	0.00%	7.14%
Unsatisfactory	F	0.00%	0.00%

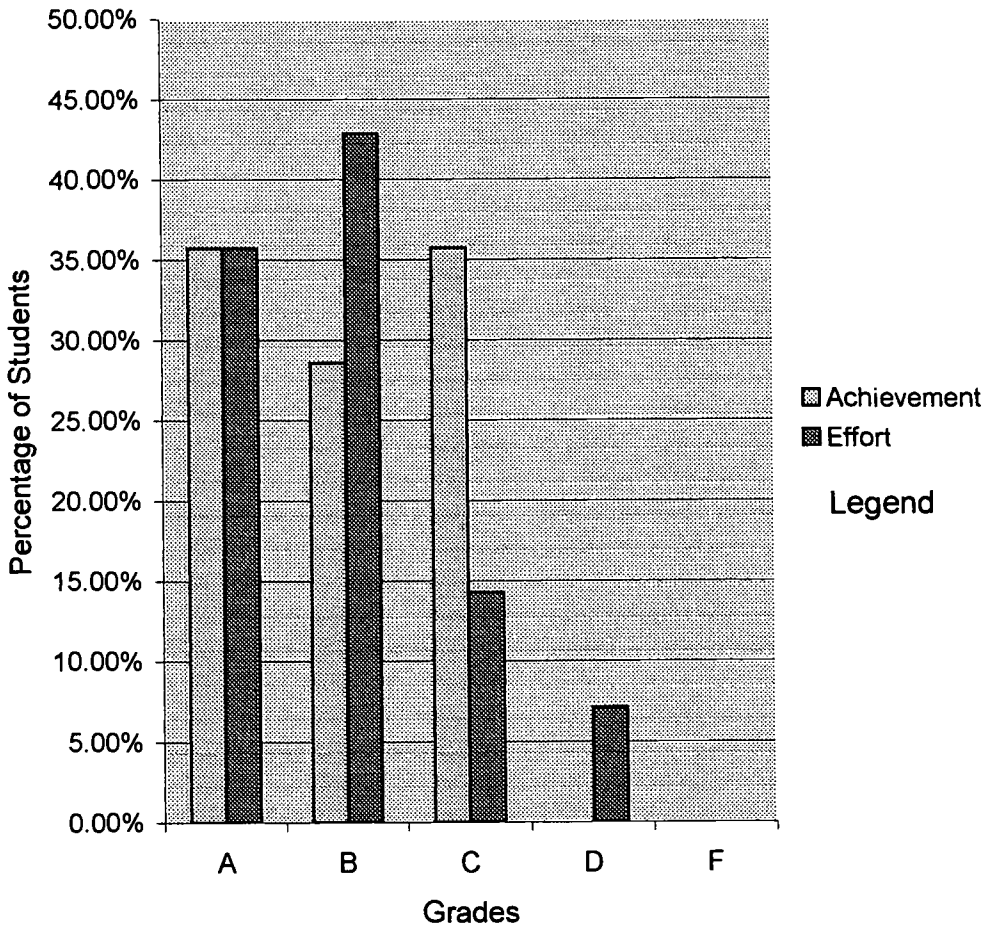


Figure 11. Graph of final music assessment scores, November 3, 2000 (N = 14).

Table 8.

Item Analysis and Comparison of Preliminary Seventh Grade Student Music Survey (August 29, 2000) and Post Seventh Grade Student Music Survey (November 3, 2000).

Item Questions	Strongly Agree (Prelim.)	Strongly Agree (Post)	Agree (Prelim.)	Agree (Post)	*No Opinion	Disagree (Prelim.)	Disagree (Post)	Strongly Disagree (Prelim.)	Strongly Disagree (Post)
1	14.29%	0.00%	64.29%	85.71%	21.43%	0.00%	14.29%	0.00%	0.00%
2	42.86%	21.43%	28.57%	71.30%	28.57%	0.00%	7.14%	0.00%	0.00%
3	28.57%	35.71%	42.86%	50.00%	14.29%	0.00%	14.29%	14.29%	0.00%
4	35.71%	35.71%	42.86%	42.86%	7.14%	0.00%	21.43%	14.29%	0.00%
5	35.71%	50.00%	28.57%	28.57%	28.57%	7.14%	14.29%	0.00%	7.14%
6	35.71%	35.71%	50.00%	64.29%	14.29%	0.00%	0.00%	0.00%	0.00%
7	0.00%	7.14%	14.29%	78.57%	71.43%	7.14%	14.29%	7.14%	0.00%
8	21.43%	7.14%	64.29%	57.14%	7.14%	7.14%	21.43%	0.00%	14.29%
9	7.14%	35.71%	21.43%	57.14%	64.29%	7.14%	7.14%	0.00%	0.00%
10	7.14%	35.71%	42.86%	57.14%	42.86%	0.00%	7.14%	7.14%	0.00%
11	14.29%	14.29%	42.86%	57.14%	28.57%	14.29%	28.57%	0.00%	0.00%

Note. The " *no opinion " response category was only provided in the preliminary student music survey of August 29, 2000.

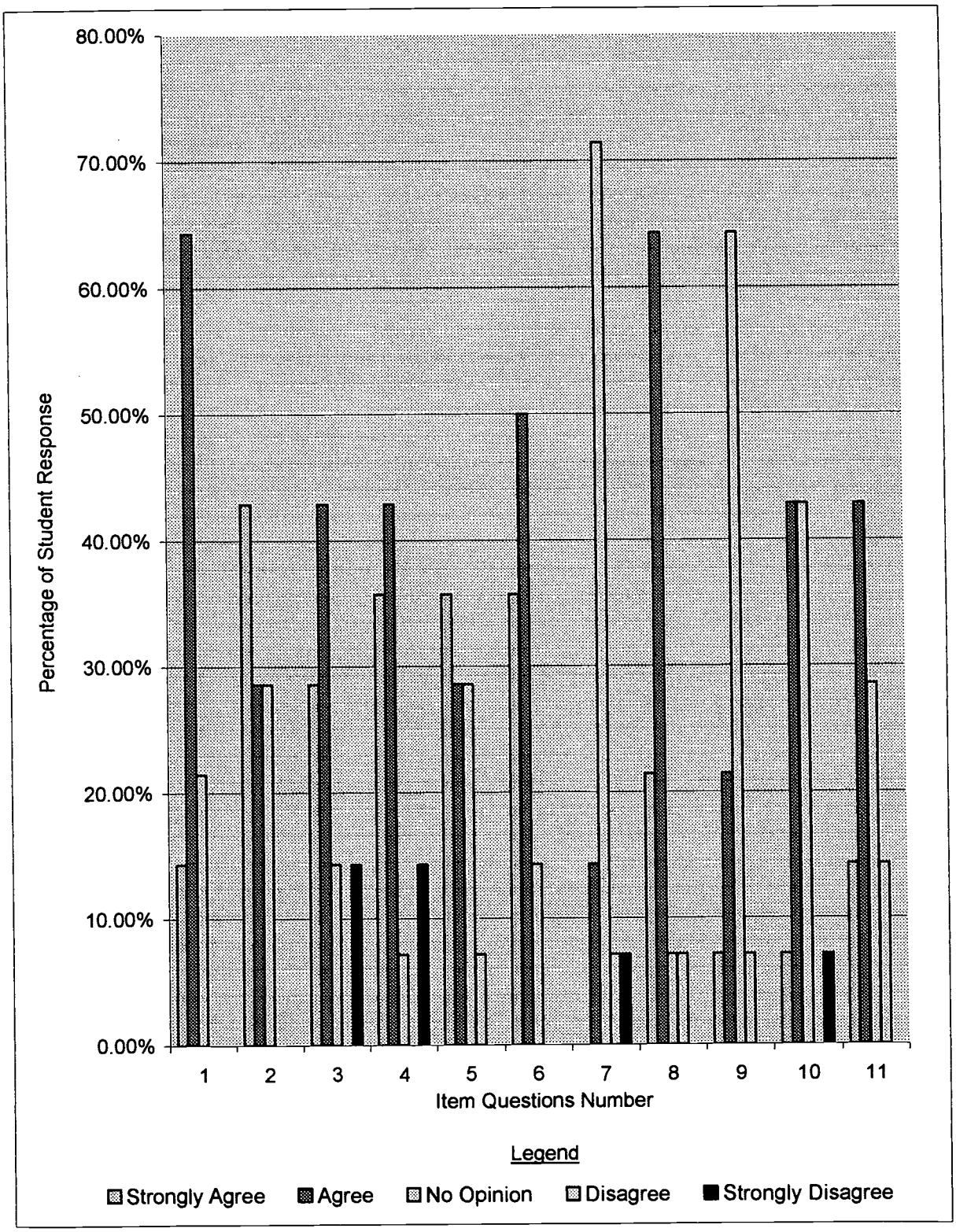


Figure 12. A comparison graph of preliminary (August 29, 2000) and post (November 3, 2000) analysis of student music survey items.

Table 9.

Statistical Results of Seventh Grade Post Music Survey,

November 3, 2000.

Item Question	Mean	Mode	Median
1	2.1	2	2
2	1.9	2	2
3	1.8	2	2
4	1.9	2	2
5	1.8	1	2
6	1.6	2	2
7	2.1	2	2
8	2.4	2	2
9	1.7	2	2
10	1.7	2	2
11	2.1	2	2

Key

Mode & Median Scores

1 = strongly disagree

2 = disagree

3 = agree

4 = strongly agree

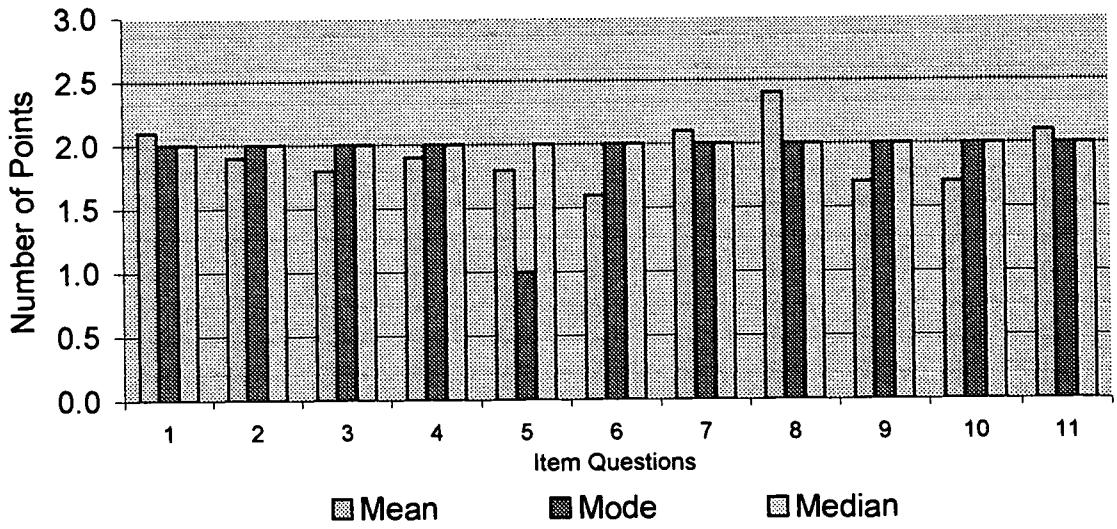


Figure 13. Graph of seventh grade post music survey displaying mean, mode and median scores.

survey of 78.57 percent. Student attitudes toward the instructor's classroom management included: students having enough time for skill improvement (question one) at 85.71 percent (an increase of 7.14%); students choosing the topics for music study (question two), at 92.86 percent (combined total agreement, with a 21.43% shift from the preliminary survey); receiving praise/rewards for student efforts (question four) remained the same (88.58%); and feeling comfortable to ask questions and give comments (question eleven) was 71.30% (combined total agreement, with a 14.29% shift from the preliminary survey). A positive shift in most student response categories prevailed in the re-administering of the seventh grade student music survey (Table 8 and Figure 12). Furthermore, statistical results from mean and mode scores did indicate high to extremely high levels of agreement with a very high degree of validity (Table 9 and Figure 13).

Conclusion and Recommendations

Based on the presentation and analysis collected from teacher observation checklists, student music portfolios containing reflective journals/logs, various quarterly music assessment scores that indicated music achievement and effort, and student music surveys, the following conclusions have been reached from the intervention strategy. At first, the multiple intelligence lesson activities were found in all aspects of the other three strategies. The fusion of all four strategies was in essence the reason for the effectiveness of the action plan, though each individual strategy had its own strength and purpose to elicit positive student response.

The multiple intelligences serving as an umbrella for all other strategies gave emphasis to a singular intelligence, but coupled with one or two supporting intelligences in a given lesson activity, gave balance and integrity to the learning task(s). In the keyboard synthesizer lessons (#1 and 2), the musical/rhythmic and visual/spatial intelligences had increased student

engagement, interest and motivation, but these two lessons also facilitated the technology strategy, which kept students, engaged and motivated.

In the reading and playing of the C, F, and G major pentachord lessons (#4, 5 and 6), emphasis placed on the bodily/kinesthetic, logical/mathematical, and verbal/linguistic intelligence was implemented. This set of lessons demonstrated moderate levels of student interest and motivation, because of the more traditional way of learning music through literacy. Lessons provided through direct instruction may have contributed to the interference of student engagement and motivation.

The MusicAce lessons (#7 and 8), based on the visual/spatial, musical/rhythmic, and verbal/linguistic intelligences, resulted in extremely high student engagement while increasing student levels of motivation. The accompanying strategy, again, was technology, which was the key to students' novelty engagement. Additionally, journal entries and most of the self-assessment data indicated students' high positive interest and motivation.

The piano and technology video, Music by Computer, incorporating the visual/spatial, verbal/linguistic, and intrapersonal intellignces, was found to be high in affecting students' musical interest. Some students expressing that they would like to compose music on computers, showed desired, positive effects, on student attitudes and perceptions in creating music. This set up a positive lead-in or a kind of anticipatory set which prepared students for individual and group experimentation on the MusicShop software program.

Within the pentachord song repertoire lesson activities (#10-12 and 16-18), focusing on the visual/spatial, musical/rhythmic, verbal/linguistic, intrapersonal, as well as interpersonal intelligences, student achievement was challenging for those who were initially experiencing difficulty in rudimentary music skills. Prior drill lessons like that of MusicAce, were meant to

increase student conceptual music understanding. According to students' daily/weekly learning logs, completion of song selections drastically decayed over the intervention period. These students were those, who regardless of increased interest or motivation, foundered in completing more than half of the assigned song repertoire. Direct instruction was given to the whole class, as well as individual students. When having to write original lyrics to some of the pre-composed songs that focused on the verbal/linguistic intelligence, students had difficulty with creating lyrics. Student creative writing skills were called upon for this exercise, and some students did not possess or have the experience(s) in writing creatively to complete this assignment. Students who did succeed in playing the song repertoire at a passing level were able to, or at least demonstrated, some effort to complete the songs. The low level of student output in regard to completion of assignments is in direct correlation to the application of attribution theory in student learning. In the picture soundpiece (lesson #3), focusing on the visual/spatial, bodily/kinesthetic, interpersonal, and naturalist intelligence, student group work was found fully completed and engaging for students. Journal entries indicated that this lesson was "fun" for students. The student interest and motivation in this lesson could be attributed to the encouragement stemming from group dynamics and intelligence focus of the activity.

The MusicShop lessons (#13, 14, and 19-21) were found progressively challenging for all students, but because of the physical ease in editing and composing, students did not find the work as laborious. Music creativity was able to flow without compounding or hindering writing delays, and therefore, it would be safe to speculate that students were easily engaged and motivated by the immediate results of their experimental composing efforts on music composition software. Though students did not have the sustained opportunity to fully develop

their composition ideas in a nine-week period, there still remained the fact that students' motivation, interest, and effort were undeniably present.

In the open class performance of the pentachord song repertoire, the major intelligence emphasis was on the interpersonal, intrapersonal, and as well as other intelligences. Some students were extremely eager to play, while most waited to be called on, and a few were totally fearful of the event. Students were given the opportunity to play with their individual partners if they found the activity intimidating, but were encouraged by classmates and the instructor to pursue the playing of songs. This class activity was to give segue to the culminating event for serious student self-assessment and reflection. Though intimidating for some students, the two-day activity was successful according the researcher's observations. Again, the emphasis in the performance was to celebrate student learning in the class/group environment, and to encourage and motivate students in continuing with music keyboard playing.

According to all portions of the daily/weekly/reflective learning journal and logs, there has been a clear advantage to this form of teacher-to-student and student-to-teacher communication. Also, immediate teacher feedback was effective in bolstering student motivation and effort through the use of the GEC teacher switchboard and MIE audible keyboard responses.

This researcher's concerns are with the students who fell below average in their final portfolio requirement (21.43%). These students had difficulty with appropriate classroom behavior and/or achievement, but when reading their journal entries and observing their behaviors, these students still felt unmotivated or lacked the confidence to persevere, or did not know how to channel other strengths to compensate for their learning gaps. For the researcher, the students' willingness to learn was the greatest factor in grading these particular students.

This researcher had to individually help these students to organize, strategize, and redirect learning efforts (building on already acquired skills) in order to help motivate them. To recapture the focus on effective learning, the North Central Regional Education Laboratory (as cited in, Burke, 1999) suggested:

> Assessments, therefore, should focus on students acquiring knowledge, as well as the disposition to use skills and strategies and apply them appropriately. Recent studies suggest that poor thinkers and problem solvers may possess the skills they need, but may fail to use them in certain tasks. Integration of learning, motivation, collaboration, the affective domain and metacognitive skills all contribute to lifelong learning. Assessment practices must stop measuring knowledge skills and start measuring the disposition to use the skills.

The success of all the strategies within the intervention have been interdependent of one another for successfully eliciting student interest and motivation that increased student achievement. This is clearly visible with the results found in the final quarterly assessment scores. The most effective and favored motivator and achievement building strategy was that of music technology. This strategy addressed various learning styles, as mentioned through the use of the multiple intelligences, to increase student music achievement. Students enjoyed learning through this method as indicated by student journal entries. Authentic self-assessment was a vehicle for students to become cognizant and metacognitively aware of their growth in music achievement as well as their growing awareness in the appreciation for music.

This researcher endorses the use of the multiple intelligences as a strategy for the facilitation of various student learning styles throughout the general music curriculum. All grade levels would benefit from its usage. When music instructors are considering undertaking music

curriculum development, the instructor must consider the exorbitant amount of time it takes to research and prepare for curriculum lessons that reflect the multiple intelligences. When preparing these lessons, the instructor should allow students to work in groups or with partners, and then allow sufficient time to complete the learning tasks.

The use of technology is highly recommended for all students, especially those who may need to experience individual practice and drill. All students can greatly benefit from music software that enables music creativity in composition, and keyboard labs that provide multiple levels of tone color voicing and multi-options for student experimentation. Music and tech labs can be as simple as using synthesizers or as complex as to consist of MIDI capable workstations (with computers) that can be linked or set apart individually as to accommodate small or large class groups. Music software should be chosen on the basis of student preferences in musical style and interests. Having software that meets various musical styles would be the most beneficial for developing music appreciation. Immediate teacher-to-student and student-to-teacher feedback can be successful with a student and teacher headphone communication system that will allow for individual student instruction and student praise. Budget constraints will have to be considered when implementing music technology.

Using an authentic self-assessment strategy such as learning journals and learning logs are highly recommended. The instructor must keep in mind to review and make appropriate comments to students, and furthermore, make certain that all student journals or logs be returned in a timely manner as to answer, redirect, and motivate student efforts. All teacher responses must be kept as positive as possible. Due to the short amount of time within the school week (depending upon what the school districts' schedules provide), the instructor will need to be specific in creating a schedule for students to make and submit journal or log entries.

As with all educational recommendations, the recommendations mentioned in this study must be modified to accommodate each new and unique educational setting. The researcher within this study has not even combed the surface for effectively addressing student music motivation or interest that would increase students' music achievement. Further inquiry on how to effectively apply technology in the music classroom will have to progress beyond the pioneer stages for music educators. Some students may never experience technology in their music classrooms, but the music instructor will have to continue to develop strategies that will keep alive the interests of the instructor's music students.

References

Arnett, P. L. (1995). Managing the music classroom with technology. Learning and Leading Wth Technology, Vol. 23 No. 4 pp.14-17. Dec/Jan 1995-1996.

Bissell, P. M. (1995). Keyboards launch students into music. Music Educators Journal, Vol. 82 No. 1 pp. 29-31. Jul 1995.

Bissell, P. M. (1998). Tune into technology. Music Educators Journal. Vo. 85 No. 2 pp. 36-41. Sep 1998.

Blythe, T., Gardner, H., & White, N. (1992). Multiple intelligences theory: creating the thoughtful classroom. In A. Costa, J. Bellanca, & R. Fogarty (Eds.). If minds matter: A forward to the the future, Vol. 2. pp. 127-134. Palatine, IL: IRI/Skylight.

Bol, L.; Stephenson, P. L.; et al. (1998). Influence of experience, grade level, and subject area on teachers' assessment practices. Journal of Educational Research [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 5].

Brandstrom, S. (1996). Self-formulated goals and self-evaluation in music education. Bulletin of the Council for Research in Music Education, No. 127 pp. 16-21 Winter 1996.

Burke, K. (1999). The Mindful School: How to Assess Authentic Learning Introduction. pp. XV. Arlington Heights, IL: Skylight Professional Development.

1990 Census. (1997). Geolytics, Incorporated.

Chapman, C. (1993). If the shoe fits... how to develop multiple intelligences in the classroom Chap. 1. pp. 18-19. Arlington Heights, IL: IRI/Skylight.

Chiodo, P.; Frakes, L.; Macleod, S.; Pagel, R.; Shuler, S.; Thompson, J.; Watts, D. (1998). Making the grade authentic assessment in music, K-8. Teaching Music [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Colwell, R.; Davidson, L. (1996). Musical intelligence and the benefits of music education. NASSP Bulletin, Vol. 80 No.583 pp. 55-64 Nov 1996.

Corley, B. (1998). Group education with the korg GEC system. The Resource Guide for Music Educators, Vol. 5 No. 1 pp. 4-5 1998.

Cumming, J.; Maxwell, G. S. (1999). Contextualising authentic assessment. Educational Tests and Measurements [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Davidson, J. W.; Howe, M. J. A.; Sloboda, J. A. (1996). The role of parents and teachers in the success and failure of instrumental learners. Bulletin of the Council for Research in Music Education, No. 127 pp. 40-44 Winter 1995-1996.

Elwill, W. C.; Tiberio, J. (1994). Teacher praise: what students want. Journal of Institutional Psychology [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 7].

Fant, G. (1995). Motivational ideas for the musical ensemble. Music Educators Journal, Vol. 81 No.5 pp. 17-20 Mar 1995.

Forest, J. (1995). Music technology helps students succeed. Music Educators Journal, Vol. 81 No. 5 pp. 35-48 Mar 1995.

Gipps, C.; Tunstall, P. (1996). Teacher feedback to young children in formative assessment. British Educational Research Journal [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 7].

Goolsby, T. W. (1995). Portfolio assessment for better evaluation. Music Educators Journal, Vol. 82 No.3 pp. 39-44 Nov 1995.

Harper, S.; Jordan, C.; Mettetal, G. (1998). Attitudes towards a multiple intelligence curriculum. Journal of Educational Research, Vol. 91 No.2 pp. 115-125 Nov/Dec 1998.

Hecht, J. B.; Roberts, N. K. (1996). Teacher teams and computer technology: do combined strategies maximize student achievement? Journal of Research on Computing in [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 5].

Hickey, M. (1999). Assessment rubrics for music composition. Music Educators Journal, Vol. 85 No. 4 pp. 26-32, 52 Jan 1999.

Hootstein, E. W. (1996). Motivating at-risk students to learn. Clearing House, [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Huang, S. L.; Waxmn, H. C. (1996). Motivation and learning environment differences in inner-city middle school students. Journal of Educational Research, Vol. 90 No.2 pp. 93-102 Nov/Dec 1996.

Johnson, G. M. (1997). Teachers in the inner-city: experienced-based ratings of factors that place students at risk. Preventing School Failure [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 26].

Kassell, C. (1998). Music and the theory of multilple intelligences. Music Educators Journal[On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 5].

Kelstrom, J. M. (1998). The untapped power of music: its role in the curriculum and its effect on academic achievement. NASSP Bulletin, Vol. 82 No. 597 pp. 34-43 April 1998.

Larsen E. (1998). Feedback: multiple purposes for management classrooms. Journal of Management Education [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Latham, A. S. (1997). Learning through feedback. Educational Leadership [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 7].

Madden, L. (1997). Motivating students to learn better through own goal-setting. Education [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 28].

Martin-Kniep, G.; Soodak, L. C. (1994). Authentic assessment and curriculum integration: natural partners in need of thoughtful policy. Educational Policy [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 30].

Meece, J. L.; Miller, S. D. (1997). Enhancing elementery students' motivation to read and write: a classroom intervention study. The journal of Educational Research, Vol. 9 No. 5 pp.286-299 May/Jun 1997.

Muro, D. (1997). A tool for music education. Teaching Music [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 28].

Nichols, J. D. (1998). An alternative learning program: effects on student motivation and self-esteem. The Journal of Educational Research, Vol. 91 No.5 pp.272-278 May/Jun 1998.

Pierce, C. (1994). Importance of classroom climate for at-risk learners. Journal of Educational Research, [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Reese S. (1995). MIDI-assisted composing in your classroom. Music Educators Journal, Vol. 81 No. 4 pp. 37-40 Jan 1995.

Reese S. (1995). Music learning in your school computer lab. Music Educators Journal, Vol. 85 No. 3 pp. 31-36 Nov. 1998.

Rudgers, G. B. (1996). Aesthetic education in the performance classroom. Teaching Music, Vol. 4 No. 3 Dec. 1996.

Ryba, K.; Selby, L. (1995). Computers empower students with special needs. Educational Leadership. [On-line]. http://www.rockford.edu/library/libhp.htm [2000, July 5].

Schmidt, C. P. (1995). Attributions of success, grade Level, and gender as factors in choral students' perceptions of teacher feedback. Journal of Research in Music Education, Vol. 43 No. 4 pp. 313-329 Winter 1995.

1998 -1999 School Report Card: Washington Communication Academy. (1999). Rockford: Rockford Board of Education, School District 205.

Silver, H.; Strong, R. (1997). Integrating learning styles and multiple intelligences. Educational Leadership, [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 5].

Stammer, R. A. (1999). Motivation in the choral rehearsal. Music Educators Journal, Vol. 85 No. 5 pp. 26-29 March 1999.

Taisir, S. (1999). Attitudes towards computers of gifted students and their teachers. High Ability Studies [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, June 29].

Taylor, O. (1997). Student interpretations of teacher verbal praise in selected seventh and eighth grade choral classes. Journal of Research in Music Education, Vol.45 No.4 pp. 536-546 Winter 1997.

Vaidya, S. R. (1999). Metacognitive learning strategies for students with learning disabilities. Education [On-line]. Available: http://www.rockford.edu/library/libhp.htm [2000, July 5].

Whitcomb, R. (1999). Writing Rubrics for the Music Classroom. Music Educators Journal, Vol. 85 No. 6 pp. 26-32 May 1999.

APPENDIX

Appendix A.01

Preliminary Student Music Survey

Seventh Grade
Student Music Survey

Please circle a response that reflects your personal opinion in each item question.

1. I have enough time to improve my music skills during music class.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

2. Having students suggest the music topics for class study would make music more interesting.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

3. I enjoy learning new music skills that help develop my instrument playing.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

4. Receiving praise and rewards for my efforts in music class, will encourage me to want to learn more.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

5. I am motivated when working with a partner or a group of students during music class.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

Seventh Grade, Student Music Survey, continued:

6. When I am not in school, listening to music is one of my favorite activities.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

7. Listening and playing with the numerous sounds of the keyboard (synthesizer) encourages me to want to play other instruments in the band or orchestra when entering high school.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

8. When I do music assignments alone, I find myself less interested in what the class is doing.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

9. I see music technology (electronic piano keyboards, music software, computers, etc.) as an enjoyable way to learn music.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

10. Listening and studying various styles of music is enjoyable and keeps my interest.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

11. I feel comfortable to ask questions and give comments to the music teacher and class.

Strongly Agree Agree No Opinion Disagree Strongly Disagree

Appendix A.02

Post Student Music Survey

Seventh Grade
Student Music Survey

Please circle a response that reflects your personal opinion in each item question.

1. I have enough time to improve my music skills during music class.

Strongly Agree Agree Disagree Strongly Disagree

2. Having students suggest the music topics for class study would make music more interesting.

Strongly Agree Agree Disagree Strongly Disagree

3. I enjoy learning new music skills that help develop my instrument playing.

Strongly Agree Agree Disagree Strongly Disagree

4. Receiving praise and rewards for my efforts in music class, will encourage me to want to learn more.

Strongly Agree Agree Disagree Strongly Disagree

5. I am motivated when working with a partner or a group of students during music class.

Strongly Agree Agree Disagree Strongly Disagree

Seventh Grade, Student Music Survey, continued:

6. When I am not in school, listening to music is one of my favorite activities.

trongly Agree Agree Disagree Strongly Disagree

7. Listening and playing with the numerous sounds of the keyboard (synthesizer) encourages me to want to play other instruments in the band or orchestra when entering high school.

Strongly Agree Agree Disagree Strongly Disagree

8. When I do music assignments alone, I find myself less interested in what the class is doing.

Strongly Agree Agree Disagree Strongly Disagree

9. I see Music Technology (electronic piano keyboards, music software, computers, etc.) as an enjoyable way to learn music.

Strongly Agree Agree Disagree Strongly Disagree

10. Listening and studying various styles of music is enjoyable and keeps my interest.

Strongly Agree Agree Disagree Strongly Disagree

11. I feel comfortable to ask questions and give comments to the music teacher and class.

Strongly Agree Agree Disagree Strongly Disagree

Appendix B.01
Teacher Observation Checklist

MUSIC OBSERVATION CHECKLIST
ON
STUDENT PARTICIPATION & EFFORT

Class & Grade:_____
Dates(s) of observation: _____
Activity (Description):_____

Ratings:
1 = Not Yet
2 = Sometimes
3 = Frequently

Total Scores:
3 = demonstrates lack of effort
4 - 6 = demonstrates some effort
7 - 9 = demonstrates continual progress in effort

Completes Task:
Yes (Y)
No (N)

ID CODE	FOLLOWS ASSIGNMENT	COMTRIBUTES IDEAS TO TEAM (PARTNERS)	COMMUNI-CATES POSITIVELY	TOTAL SCORE	COMPLETED TASK
1._____					
2._____					
3._____					
4._____					
5._____					
6._____					
7._____					
8._____					
9._____					
10._____					
11._____					
12._____					
13._____					
14._____					
15._____					
16._____					
17._____					
18._____					
19._____					
20._____					

Appendix B.02

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of September 13, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	2	3
4	3	3	1
5	3	3	3
6	3	1	2
7	3	2	2
8	3	3	3
9	3	2	1
10	3	3	3
11	3	3	3
12	3	3	3
13	3	3	1
14	3	3	3

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	2	3
4	3	3	1
5	3	3	3
6	3	1	2
7	3	2	2
8	3	3	3
9	3	1	1
10	3	3	3
11	3	3	3
12	3	3	3
13	3	3	1
14	3	3	3

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	3
4	3	3	3
5	3	3	3
6	3	1	1
7	3	2	3
8	3	3	3
9	3	3	1
10	3	3	3
11	3	3	3
12	3	3	3
13	3	3	2
14	3	3	3

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	9
2	9	9	9
3	9	7	9
4	9	9	5
5	9	9	9
6	9	3	5
7	9	6	7
8	9	9	9
9	9	6	3
10	9	9	9
11	9	9	9
12	9	9	9
13	9	9	4
14	9	9	9

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.03

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of September 20, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	2
2	3	3	3
3	3	3	3
4	2	1	1
5	2	2	1
6	3	3	2
7	2	1	1
8	3	3	3
9	2	1	1
10	3	3	3
11	3	3	2
12	3	3	2
13	3	3	3
14	2	1	1

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	2
2	3	3	3
3	3	3	3
4	2	1	1
5	2	2	2
6	3	3	3
7	1	1	1
8	3	3	3
9	2	1	2
10	3	3	3
11	3	3	2
12	3	3	2
13	3	3	3
14	1	1	1

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	3
4	1	1	1
5	2	1	1
6	3	3	2
7	1	1	1
8	3	3	3
9	2	2	2
10	3	3	3
11	3	3	2
12	3	3	2
13	3	3	3
14	2	2	1

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	7
2	9	9	9
3	9	9	9
4	5	3	3
5	6	5	4
6	9	9	7
7	4	3	3
8	9	9	9
9	6	4	5
10	9	9	9
11	9	9	6
12	9	9	6
13	9	9	9
14	5	4	3

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.04

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of September 27, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	2
4	2	3	3
5	3	3	3
6	2	3	2
7	3	3	3
8	3	3	3
9	2	3	1
10	3	3	3
11	3	3	2
12	3	3	3
13	3	3	3
14	2	3	2

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	2
4	2	3	3
5	3	3	3
6	2	3	2
7	3	3	3
8	3	3	3
9	2	3	1
10	3	3	3
11	3	3	2
12	3	3	3
13	3	3	3
14	2	3	2

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	2	3
3	3	3	2
4	2	3	3
5	3	3	3
6	1	2	2
7	3	3	3
8	3	3	3
9	1	1	1
10	3	3	3
11	3	2	3
12	3	3	3
13	3	3	3
14	2	2	2

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	9
2	9	8	9
3	9	8	6
4	6	9	9
5	9	9	9
6	5	8	6
7	9	9	9
8	9	9	9
9	5	7	3
10	9	9	9
11	9	8	7
12	9	9	9
13	9	9	9
14	6	8	6

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.05

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of October 4, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	2
2	3	3	3
3	3	2	2
4	2	1	1
5	3	3	3
6	3	2	1
7	0	0	1
8	3	3	3
9	2	1	1
10	3	3	2
11	3	3	3
12	3	3	2
13	3	2	2
14	2	0	0

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	2
2	3	3	3
3	3	2	2
4	2	1	1
5	3	3	3
6	3	2	2
7	0	0	1
8	3	3	3
9	2	1	1
10	3	3	2
11	3	3	3
12	3	3	2
13	3	3	2
14	2	0	0

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	3
4	3	2	1
5	3	3	3
6	2	2	1
7	0	0	1
8	3	3	3
9	2	1	1
10	3	3	2
11	3	3	3
12	3	3	2
13	3	3	2
14	2	0	0

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	7
2	9	9	9
3	9	7	7
4	7	4	3
5	9	9	9
6	8	6	4
7	0	0	3
8	9	9	9
9	6	3	3
10	9	9	6
11	9	9	9
12	9	9	6
13	9	8	6
14	6	0	0

O = absent student

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.06

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of October 11, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	NA
2	3	2	NA
3	3	3	NA
4	2	1	NA
5	3	2	NA
6	2	2	NA
7	3	2	NA
8	3	3	NA
9	2	2	NA
10	3	3	NA
11	3	3	NA
12	3	2	NA
13	3	2	NA
14	2	1	NA

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	NA
2	3	2	NA
3	3	3	NA
4	1	1	NA
5	3	2	NA
6	2	2	NA
7	2	2	NA
8	3	3	NA
9	2	2	NA
10	3	3	NA
11	3	3	NA
12	3	2	NA
13	3	2	NA
14	1	1	NA

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	NA
2	3	2	NA
3	3	3	NA
4	1	1	NA
5	3	2	NA
6	2	2	NA
7	2	1	NA
8	3	3	NA
9	2	2	NA
10	3	3	NA
11	2	2	NA
12	3	2	NA
13	3	3	NA
14	2	2	NA

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	NA
2	9	6	NA
3	9	9	NA
4	4	3	NA
5	9	6	NA
6	6	6	NA
7	7	5	NA
8	9	9	NA
9	6	6	NA
10	9	9	NA
11	8	8	NA
12	9	6	NA
13	9	7	NA
14	5	4	NA

NA = Not Applicable

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.07

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of October 18, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	2	2	1
2	3	3	0
3	3	2	2
4	2	1	1
5	2	1	0
6	3	2	2
7	1	1	1
8	3	2	2
9	1	1	1
10	3	2	2
11	2	2	1
12	2	1	1
13	2	0	1
14	1	1	1

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	2	2	2
2	3	3	0
3	3	3	3
4	1	1	1
5	2	1	0
6	3	3	3
7	1	1	1
8	2	3	2
9	2	2	1
10	3	3	2
11	2	3	2
12	2	1	1
13	2	0	2
14	1	1	1

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	0
3	3	2	2
4	2	2	1
5	2	1	0
6	3	3	3
7	1	1	1
8	3	2	2
9	3	2	2
10	3	3	2
11	2	2	1
12	2	2	2
13	2	0	2
14	1	1	1

0 = absent student

Totals			
Student	Activity A	Activity B	Activity C
1	7	7	6
2	9	9	0
3	9	7	7
4	5	4	3
5	6	3	0
6	9	8	8
7	3	3	3
8	8	7	6
9	6	5	4
10	9	8	7
11	6	7	4
12	6	4	4
13	6	0	5
14	3	3	3

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.08

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of October 25, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	0	3	3
3	3	3	3
4	2	2	1
5	2	2	1
6	3	3	3
7	2	2	1
8	3	2	1
9	3	2	2
10	3	3	3
11	3	3	2
12	2	0	1
13	3	3	2
14	2	2	1

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	2
2	0	2	2
3	3	3	2
4	2	2	1
5	2	1	1
6	2	2	2
7	2	1	1
8	2	1	1
9	3	2	2
10	3	2	2
11	3	3	2
12	2	0	1
13	2	2	2
14	1	1	1

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	0	3	3
3	3	3	3
4	2	3	2
5	3	2	2
6	2	2	2
7	1	1	1
8	2	2	2
9	3	3	2
10	3	2	2
11	3	3	2
12	2	0	2
13	3	3	2
14	2	1	1

0 = absent student

Totals			
Student	Activity A	Activity B	Activity C
1	9	9	8
2	0	8	8
3	9	9	9
4	6	7	4
5	7	5	4
6	7	7	7
7	5	4	3
8	7	5	4
9	9	7	6
10	9	7	7
11	9	9	6
12	6	0	4
13	8	8	6
14	5	4	3

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.09

Teacher Observation Scores Reflecting Teacher Participation and Effort

Week of November 1, 2000

Follows Assignments			
Student	Activity A	Activity B	Activity C
1	2	2	3
2	3	3	3
3	3	3	3
4	1	1	1
5	2	2	3
6	3	3	3
7	1	1	1
8	2	2	3
9	1	1	1
10	3	3	3
11	2	2	3
12	1	1	3
13	2	2	3
14	1	1	3

Contributes Ideas to Team (Partners)			
Student	Activity A	Activity B	Activity C
1	3	3	3
2	3	3	3
3	3	3	3
4	1	1	1
5	3	3	3
6	3	3	3
7	1	1	1
8	3	3	3
9	1	1	1
10	3	3	3
11	3	3	3
12	1	1	3
13	3	3	3
14	1	1	3

Communicates Positively			
Student	Activity A	Activity B	Activity C
1	3	3	NA
2	3	3	NA
3	3	3	NA
4	1	1	NA
5	2	3	NA
6	3	3	NA
7	1	1	NA
8	3	2	NA
9	1	1	NA
10	3	3	NA
11	3	3	NA
12	1	2	NA
13	3	3	NA
14	1	1	NA

NA = Not Applicable

Totals			
Student	Activity A	Activity B	Activity C
1	8	8	NA
2	9	9	NA
3	9	9	NA
4	3	3	NA
5	7	8	NA
6	9	9	NA
7	3	3	NA
8	8	7	NA
9	3	3	NA
10	9	9	NA
11	8	8	NA
12	3	4	NA
13	8	8	NA
14	3	3	NA

Rating Scale

1 = not yet
2 = sometimes
3 = frequently

Total Score

3 = demonstrates lack of effort
4-6 = demonstrates effort
7-9 = demonstrates progress in effort

Appendix B.10

Activity Completion Inventories from Teacher Observation Checklists

Weeks of September 13, 2000 through October 4, 2000

	Week of September 13, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	Y
4	Y	Y	Y
5	Y	Y	Y
6	Y	N	N
7	Y	N	Y
8	Y	Y	Y
9	Y	N	N
10	Y	Y	Y
11	Y	Y	Y
12	Y	Y	Y
13	Y	Y	N
14	Y	Y	Y

	Week of September 20, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	Y
4	N	N	N
5	Y	N	N
6	Y	Y	Y
7	N	N	N
8	Y	Y	Y
9	Y	N	N
10	Y	Y	Y
11	Y	Y	Y
12	Y	Y	Y
13	Y	Y	Y
14	N	N	N

	Week of September 27, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	Y
4	Y	Y	Y
5	Y	Y	Y
6	Y	Y	Y
7	Y	Y	Y
8	Y	Y	Y
9	N	Y	N
10	Y	Y	Y
11	Y	Y	Y
12	Y	Y	Y
13	Y	Y	Y
14	Y	Y	Y

	Week of October 4, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	Y
3	Y	Y	Y
4	Y	N	N
5	Y	Y	Y
6	Y	Y	N
7	-	-	N
8	Y	Y	Y
9	Y	N	N
10	Y	Y	Y
11	Y	Y	Y
12	Y	Y	Y
13	Y	Y	Y
14	Y	-	-

Key

Y = Yes, activity completed

N = No, activity not completed

Appendix B.11

Activity Completion Inventories from Teacher Observation Checklists

Weeks of October 11, 2000 through November 1, 2000.

	Week of October 11, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	-
2	Y	Y	-
3	Y	Y	-
4	N	N	-
5	Y	Y	-
6	Y	Y	-
7	Y	N	-
8	Y	Y	-
9	Y	Y	-
10	Y	Y	-
11	Y	Y	-
12	Y	Y	-
13	Y	Y	-
14	N	N	-

	Week of October 18, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	Y	Y	-
3	Y	Y	Y
4	N	N	N
5	Y	N	-
6	Y	Y	Y
7	N	N	N
8	Y	Y	Y
9	Y	N	N
10	Y	Y	Y
11	Y	Y	N
12	Y	N	N
13	Y	-	N
14	N	N	N

	Week of October 25, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	Y
2	-	Y	Y
3	Y	Y	Y
4	Y	Y	N
5	Y	N	N
6	Y	Y	Y
7	Y	N	N
8	Y	N	N
9	Y	Y	Y
10	Y	Y	Y
11	Y	Y	Y
12	Y	-	N
13	Y	Y	Y
14	N	N	N

	Week of November 1, 2000		
Student	Activity A	Activity B	Activity C
1	Y	Y	-
2	Y	Y	-
3	Y	Y	-
4	N	N	-
5	Y	Y	-
6	Y	Y	-
7	N	N	-
8	Y	Y	-
9	N	N	-
10	Y	Y	-
11	Y	Y	-
12	N	N	-
13	Y	Y	-
14	Y	Y	-

Key

Y = Yes, activity completed

N = No, activity not completed

Appendix C
Reflective Learning Journal

MUSIC

DAILY / WEEKLY

PART II A

REFLECTIVE LEARNING JOURNAL

Student Name: _____

Class & Grade: _____ **Week:** _____

Unit of Study: _____

Entry Date: _____ **(Day One)** **Summary of key learning points:** **Reflective Statement:**	**SHARE YOUR FEELINGS** (circle one) **- No problem here!** **- I am lost, help!** **- A little help and I 'm fine.** **Questions / Comments:**

Entry Date: _____ **(Day Two)** **Summary of key learning points:** **Reflective Statement:**	**SHARE YOUR FEELINGS** (circle one) **- No problem here!** **- I am lost, help!** **- A little help and I'm fine.** **Questions / Coments:**

Entry Date: _____ **(Day Three)** **Summary of key learning points:** **Reflective Statement:**	**SHARE YOUR FEELINGS** (circle one) **- No problem here!** **- I am lost, help!** **- A little help and I'm fine.** **Questions / Comments:**

(Back side of reflective journal for teacher-to-student communication)

Teacher Feedback (Part II B)
for student questions and comments

DAY ONE **Teacher's suggestions/answers:**	**Your strengths are:**	**Student feedback/comments:**
DAY TWO **Teacher's suggestions/answers:**	**Your strengths are:**	**Student feedback/comments:**
DAY THREE **Teacher's suggestions/answers:**	**Your strengths are:**	**Student feedback/comments:**

Appendix D

Weighted Performance Rubric

WEIGHTED PERFORMANCE RUBRIC SCALE

Name: _____ Date: _____

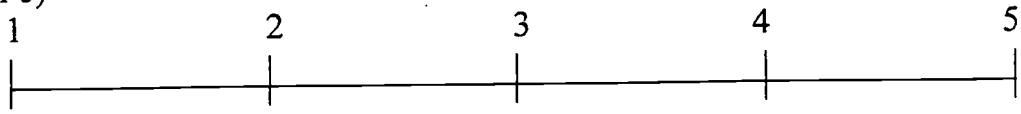
Class & Grade: _____

Unit of Study: _____

Type of Assessment:

○ Self ○ Teacher

Score: (1-5)



"Cover your ears" "Hey, no earplugs" "Almost there" "I'm rockin" "Mozart move aside"

Directions: Circle the numerical score for each item below.

Music Literacy **Score:**_____ x 3 =_____

- Reading notation on the Grand Staff 1 2 3 4 5 (30)
- Reading Note Values 1 2 3 4 5

Beat & Rhythm Awareness **Score:**_____ x 3 =_____

- Playing with note/key accuracy 1 2 3 4 5 (45)
- Playing to the beat 1 2 3 4 5
- Playing of melodic rhythms 1 2 3 4 5

The Keyboard – Developing Finger & Hand Technique: **Score:**_____ x 1 =_____

- Play with all five fingers 1 2 3 4 5 (10)
- Play with both hands (Grand Staff) 1 2 3 4 5

Playing the keyboard with Creativity: **Score:**_____ x 1 =_____

- Can play with one rhythmic accompaniment style 1 2 3 4 5 (15)
- Can play with the class/group ensemble 1 2 3 4 5
- Can play with various accompaniment styles 1 2 3 4 5

Scale: 93 – 100 = A 78 – 86 = C
87 - 92 = B 70 – 77 = D

Total Score:_____ 100

Appendix E

Learning Log

MUSIC **DAILY / WEEKLY LEARNING LOG** PART I

Student Name: _____

Class & Grade: _____

Unit of Study: _____

Directions: Please make a log entry for every song that you complete from the song repertoire. For each song, supply the information as requested below. Daily, in **Part II**, include a one sentence summary of your key learning points and a short reflective statement on your learning experiences for that class period. Then, please complete the "share your feelings" portion and read the teacher suggestions or comments (on back of the learning journal sheet) and then give <u>your</u> feedback to the teacher's suggestions or comments.

Song Title	Page #	Date Completed	# of class periods to master
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Appendix F

Lesson #1

Keyboard Exploration

Objective: Familiarizing students to the X5 and X5D Synthesizers

Targeted Intelligence: Visual / Spatial

Procedure:

A. Show the locations of basic keyboard buttons.

B. Demonstrate basic button usage and have students listen for changes in keyboard tone colors.

C. Explain and define: General MIDI, Program and Combination Modes.

D. Have students locate and experiment with the following buttons:

LCD Display

Master Volume Slider

Yes/No Value Buttons

Value Slider

Page+ / Page- buttons

Cursor left/right buttons

Number Pad and Enter

10's Hold/ - Button

Pitch Bend/Modulation Wheel

E. Directions for factory reset: preset "Data Load"

Press Global button

Page to 05A – Screen should read "Preset Data" - Load OK?

Press "Yes", button to confirm reset

Appendix G

Lesson #2

Modes of the Synthesizer(s)

Objective: 1. Voice sampling and experimentation of the X5 and X5D Synthesizers

2. Students locate, change and log favorite tone color voices of keyboards on listening log handout

Targeted Intelligence: Visual / Spatial, inter / intrapersonal

Procedure: Students will work with their partner to select and record their favorite tone colors. Student must collaborate on choices.

Name _____
Date_____
Room#_____ Teacher_____

Exploration of Korg X5 Keyboard
Listening Log

Assignment #1

Record and describe your favorite tone colors in the areas below. Remember that you will at some time later choose from the list of sounds to be used in an original composition assignment. So, be careful of what you choose.

Program Mode (list names and Trac#)

1. 3.

2. 4.

Multi Mode

1. 3.

2. 4.

Combination Mode

1. 3.

2. 4.

Appendix H

Lesson #3

Picture Soundpiece

Objective:

Arrange tone color voices into a musical composition. Students will interpret and create a visual (graph) or representation of the simultaneous voice parts (melodies) heard in the their composition.

Targeted Intelligence:

Visual/Spatial, inter/intrapersonal

Materials:

Large white paper (butcher-type), markers, role cards, and keyboards

Procedure:

1. Students will work with their partner(s) to select and record their favorite tone colors as in lesson #2.

2. Students will experiment with the range and sound length of tones on the keyboards.

3. Tones should be arranged as to make up a melody. This can be repeated with different tone colors to be played simultaneously (as a harmonic composition).

4. Each student must a take on a cooperative role as the player of melody, the recorder of the melody etc..

5. Each groups must come up with a title or theme for their piece.

6. Students will practice their composition as written on their graph and then perform the composition for the class.

Reflection/Evaluation:

1. What contributed your group to decide on this particular song, mood, or theme?

2. What differences or variations could your group compose next time?

3. Was your melody graph (visual) written well enough for other groups in the class to play and interpret?

Lesson extension:

Have students select a short story and compose a music accompaniment on the X5.

Appendix I

Lesson #4

Read and Play C Pentachord

Objective: Develop skills in music literacy (introduce the reading of the music staff and playing of the C pentachord)

Students will experience the pentachord melody through singing, movement, and rhythmic speaking (chanting).

Targeted Intelligence:
Bodily/kinesthetic, logical/matematical

Materials:
Wenger Music Rug, MIE and X5 keyboards keyboards, and MIE, Module lesson #17

Procedure:

1. Students will review the step pattern of Do, Re, Mi, Fa, and Sol (solfeggio) on the Wenger rug. Students may move on the rug to show understanding of the melodic pattern and shape of the melody. Use hand and arm motions to show the contour of the pentachord.

2. Students will create a human body scale to illustrate the movement of up and down with the pentachord melody.

3. Play the C pentachord melody to accompany Mickey Mouse March of MIE lesson #17 right (both hands may be played separately as a warm-up).

4. Direct instruction will be given via the overhead projection screen to show the C majpr pentachord position.

5. Students will play "follow the leader" (creating five-note melodies) with their lab partners. Students should be encourged to create short melodic phrases within the pentachord.

6. Administer Quiz #17 as a skill check for student execution of the C major pentchord. Give immediate feedback through student headphones.

7. Students may walk to other partner stations to help others with the playing of the C pentachord.

* Note: Remind students to say corresponding finger numbers when playing.

Appendix J

Lesson #5

Read and Play F Pentachord

Objective: Develop skills in music literacy (introduce the reading of the music staff and playing of the F pentachord)

Students will transpose the C pentachord melody to the F position.

Students will experience the pentachord melody through singing, movement, and rhythmic speaking (chanting).

Targeted Intelligence:

Bodily/kinesthetic, vebal/linguistic, logical/matematical

Materials:

Music staff paper, Wenger Music Rug, MIE and X5 keyboards keyboards, and MIE, Module lesson #17

Procedure:

1. Students will review the step pattern of Do, Re, Mi, Fa, and Sol (solfeggio) on the Wenger rug once again. Students show pattern and shape of the F pentachord melody. Instructor explains how the melody has shifted up to four steps (first space of the treble staff). Use hand and arm motions to show the contour of the F pentachord melody again.

2. Students will pracice as an exercise the human body scale to illustrate the movement of up and down motion of the F pentachord scale melody. Students should now start chanting the letter names of the F pentachord scale instead of the solfeggio names.

3. Transpose the accompaniment melody of Mickey Mouse March (MIE lesson #17) to the F pentachord position. Both hands may be played separately as long as the fingering is consistent. Practic this as a warmup.

4. Direct instruction will be given via the overhead projection screen to show the newly found F major pentachord position.

5. Students will now write their own created, short phrases on staff paper to show understanding and literacy of the pentachord. Students may share their melodies with their lab partner(s

6. Administer Quiz #28 as a skill check for student execution of the F major pentchord. Give immediate feedback through student headphones.

Appendix K

Lesson #6

Read and Play G Pentachord

Objective: Develop skills in music literacy (introduce the reading of the music staff and playing of the G pentachord)

Students will transpose the F pentachord melody to the G position.

Students will experience the pentachord melody through singing, movement, and rhythmic speaking (chanting).

Targeted Intelligence:
Logical/matematical and musical/rhythmic

Materials:
MIE and X5 keyboards keyboards, and MIE, Module lesson #17

Procedure:

1. Sing the song, Are You Sleeping and write the first melodic phrase of the melody on the overhead transparency (for projector).

2. Have students play and practice the melody on X5 keyboards in C major pentachord Position.

3. Have students identify this piece by its style (the piece is a "round" or "canon").

4. Students play the loaded version of "Are you sleeping?" (the file includes only the melody on Track 1).

5. The teacher asks the students to copy and paste into the appropriate measures.

6. The teacher explains that in order to get different instruments to sound simultaneously, each part (or track) must be located on a separate MIDI channel.

7. Students assign the following MIDI channels to their respective tracks:
   - Track 1 = Channel 1
   - Track 2 = Channel 2
   - Track 3 = Channel 3

8. Students than select different timbres for each individual part.

9. Students save their work to the panel (intranet server).

10. Once the students have completed their arrangements, put them in groups of four, in GEC Quartet Mode, and have them play and discuss each other's work.

11. The students play an arrangement of Are You Sleeping with added sustained notes and percussion sounds, and the teacher explains that the tonic chord can be used throughout the piece to add interest to the arrangement.

    Students can transpose the melody up one whole-step to G major pentachord. Remind students that when transposing to G position, it is crucial to keep your fingers in the same exact hand shape and placement as the key of C major pentachord.

    The students insert sustained notes based on the tonic chord (do – mi – sol) into their version of the sequence, in order to enhance quality of the arrangement.

Appendix L

Lesson #7

Music Ace (partner lesson#'s 1,2,3)

Objective:

Develop music literacy skills through drill and practice so that acquired playing skills can be utilized later for further facility, original composing, and arranging.

Materials:

Mac Computer(s) and Music Ace program only (Intranet version on the school server)
Independent, self-guided lesson on computer I

Targeted Intelligence:

Vebal/linguistic, logical/mathematical (reading and decoding music notation), and musical/rhythmic

Lesson #1:

Introduction to the Staff

Activities inclue: Reading and identification of the staff, clefs and notes

Lesson #2

Introduction to the Piano Keyboard

Activities include: Pitch discrimination pitch matching

Lesson #3

Playing With Pitch

Activities include: Showing notes on the staff then matching two notes as either higher or lower.

Brief evaluation:

Corresponding games to each lesson can be played by students if they have completed Lessons #1,2,3 (Students save scores to the program server).

Appendix M

Lesson #8

Music Ace (partner lesson#'s 4,5,6)

Objective:

Develop music literacy skills through drill and practice so that acquired playing skills can be utilized later for further facility, original composing, and arranging.

Materials:

Mac Computer(s), Music Ace program (Intranet version on the school server), X5 keyboards (Music and Tech Lab), independent/self-guided lesson on computer l

Targeted Intelligence:

Vebal/linguistic, logical/mathematical (reading and decoding music notation), and musical/rhythmic

Lesson #4:

ABC's of the Piano Keyboard

Activities inclue: Locating and identifying the music alphabet on the piano keyboard

Lesson #5

More Piano Key ABC's

Activities include: Locating and identifying the music alphabet on the piano keyboard and more pitch discrimination/pitch matching

Lesson #6

The ABC's of theStaff

Activities include: Naming, playing and identifying notes of the piano keyboard with more pitch discrimination and pitch matchig

Brief evaluation:

Corresponding games to each lesson can be played by students if they have completed Lessons #4,5,6 (Students save scores to the program server).

Appendix N

Video

Piano and Technology: Music by Computer

Objective:

Make comparisons of today's and yesterday's music technology (only ten or thirteen years ago).

Targeted intelligence:

Visual/spatial, logical, intrapersonal

Materials:

Video, Music by Computer, Musical Encounter Productions, PBS Series; TV and VCR

Theme:

The disklavier, a piano equipped with a computer, can assist pianists in composing, teaching and performing

Class discussion on video

How did this instrument get the name disklavier?

Answer: The term klavier refers to any musical instrument having a keyboard, clavichord, or piano. The term disk in the title refers to the fact that a floppy disk is needed to record information from the piano onto the computer. Thus the term disklavier is very descriptive of this instrument.

What are some of the advantages of the disklavier for the piano teacher and the piano student?

Answer: The disklavier allows the student and the teacher to hear exactly how the student played a piece of music with respect to tempo (fast or slow), dynamics (loud or soft), and style – so that changes can be suggested. Further the disklavier allows the teacher to play a full accompaniment part which can be used by the student in a place of having the teacher or another musician physically present at all practice sessions.

What are some of the advantages of the disklavier for the composer?

Answer: Because the computer records exactly what the composer is playing, the composer no longer has to take time to stop and write down what was played to be sure that its not forgotten. Mistakes or changes, which the composer wants to be performed differently, are easily and quickly accomplished because now the sound may be manipulated with the computer once it has been recorded.

How would you answer the skeptic who says: What's all the fuss about the disklavier? Haven't we been able to reproduce sound using a tape recorder for a number of years?

Answer: It is true that we have been able to record performances using a tape recorder, but such reproduction is not exact. There are limitations in the microphone and the quality of the

(Music by Computer continued:)

speakers used to reproduce the sound. With the disklavier, the same sound source, the piano, is used to reproduce the sound, making the performance reproduced on the disklavier much more authentic. Furthermore, can you imagine what would happen if you wanted to hear the piece of music played more quickly on the tape recorder? As demonstrated, the disklavier can change the speed of the music without affecting the pitch. However, if a tape recorder was being used, not only would the music be heard faster, but the sound would also be higher. The tape recorder does not all for the manipulation of pitch (highness or lowness of sound) and tempo (fast or slow) independently as does the disklavier.

Why doesn't the music reproduced by the disklavier sound mechanical like some other computer music?

Answer: You were able to see that the keys of the piano were actually depressed in the same manner as a player piano reproduces music from a piano roll. The fact that the music is actually being reproduced on the piano and is not a type of synthesized sound makes it authentic.

How are the composition programs that we use today different from the ones used in this video ten years ago?

Answer: Synthesizers allow for the manipulation of many numerous tone colors and rhythmic styles to be recorded simultaneously, making the composer's music palette an endless choice of creative possibilities, where as the disklavier only records one tone color and numerous pitches simultaneously.

How would this affect today's composer motivation and music composition?

Appendix O

Lesson #10

Songs: Ode to Joy and Aura Lee

Objective: Utilize music literacy skills to play and interpret musical compositions, and to compose accompanying lyrics to learned songs.

Targeted intelligence:
Visual/spatial, intrapersonal, verbal/linguistic in using language (lyrics) and reading

Materials: Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards

Procedure:

1. Review C major pentachord position on keyboards and use of correct hand and finger placement.
2. Introduce: Ode to Joy as found in the method book. (follow directions from book)
3. Have students listen to Beethoven's Ninth Symphony (Ode to Joy melody sung in german).
4. Tell students "If you were to understand what was being sung, what lyrics (words) would you hear?
5. Students create lyrics by taking phrase by phrase (simple quarter note, ostinato pattern.
6. Students may work in cooperative groups (assign roles to lab partners).
7. Each group will perform (play) and sing their new lyrics. Encourage each student to participate by doing some part of the performance (sing, play, create movement – dramatize lyrics, etc.).
8. Repeat the above lesson plan for the Aura Lee song portion.

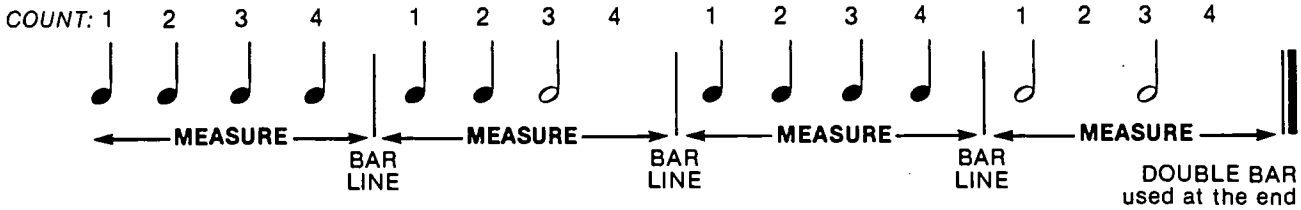
Quarter Notes & Half Notes (Crotchets & Quavers)

Music is made up of **short** tones and **long** tones. We write these tones in **notes,** and we measure their lengths by **counting.** The combining of notes into patterns is called RHYTHM.

Quarter Note (Crotchet)
a **short** note.
COUNT: "1"

Half Note (Minim)
a **long** note.
COUNT: "1 - 2"

Clap (or tap) the following rhythm. Clap ONCE for each note, counting aloud.
Notice how the BAR LINES divide the music into MEASURES of equal duration.



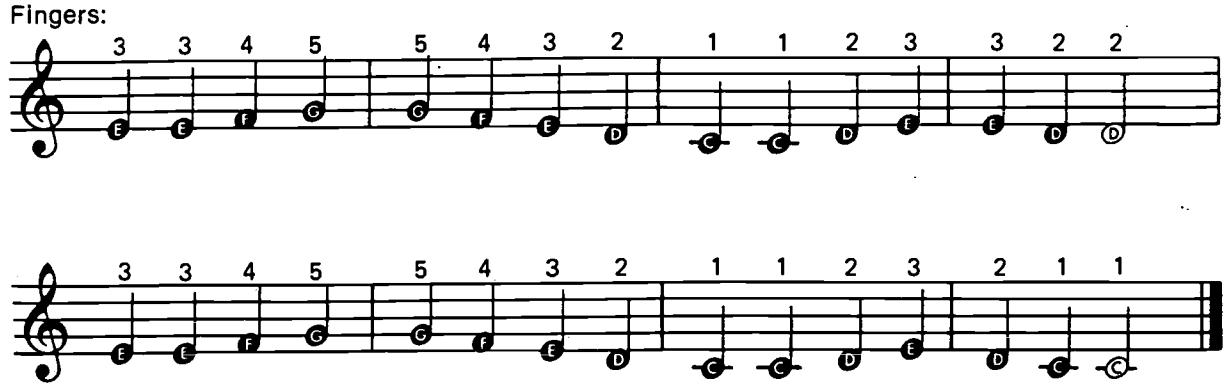
Track 3

ODE TO JOY *(Theme from Beethoven's 9th Symphony)*

Auto: OFF **Rhythm:** OFF **Register:** ORGAN **Sustain:** OFF

1. Clap (or tap) the rhythm evenly, counting aloud.
2. Play with RH, singing (or saying) the finger numbers.
3. Play again, counting aloud.
4. Play again, singing (or saying) the note names.
5. Play again with Sustain ON. Which do you like best with this Register?
6. Try other Registers with Sustain ON, and again with Sustain OFF.

Fingers:



The Whole Note (Semibreve)

Whole Note (Semibreve)
a very long note.

𝅝

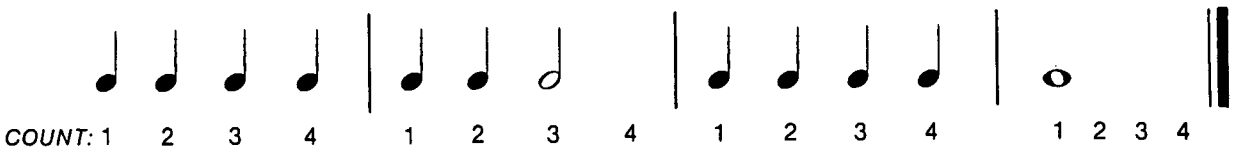
COUNT: "1 - 2 - 3 - 4"

Photo: Photoplay Archives/LGI Photo Agency

Elvis Presley helped revolutionize the way people view popular music. Along with other contemporaries from the 1950s, he inspired a generation of young musicians.

Elvis Presley

Clap (or tap) the following rhythm.
Clap **ONCE** for each note, counting aloud.



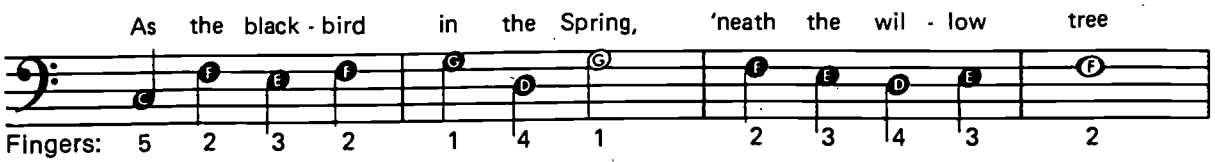
Track 5

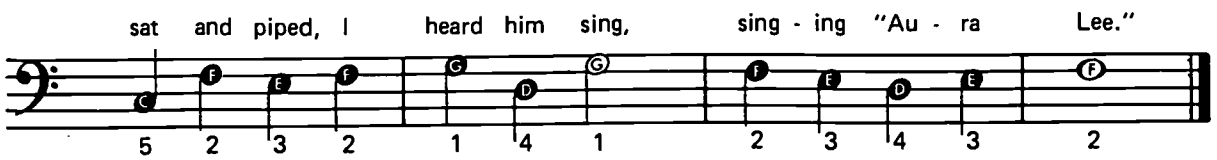
AURA LEE

This melody was made into a popular song, *"LOVE ME TENDER,"* sung by Elvis Presley.

Auto: OFF **Rhythm:** OFF **Register:** TRUMPET or ORGAN **Sustain:** OFF

1. Clap (or tap) the rhythm, counting aloud. Count evenly.
2. Play with LH, singing (or saying) the finger numbers.
3. Play and count.
4. Play and sing (or say) the note names.
5. Play again with Sustain ON. Do you prefer this to Sustain OFF?
6. Try other Registers with Sustain OFF, and again with Sustain ON.





Appendix P

Lesson #11

Songs: Grand Staff and Rock-Along

Objective:

Utilize music literacy skills to play and interpret musical compositions (instrumental only)

Targeted intelligence:

Visual/spatial, intrapersonal, musical/rhythmic

Materials:

Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards, staff paper

Procedure:

1. Have students do the C major pentachord position warm-up on keyboards, and continue to emphasize correct hand and finger placement.

2. Introduce: song, Grand Staff as found in the method book. (follow directions from book)

3. Introduce the 4/4 meter, bass staff, and explain combined staves (grand staff), and use overhead sreen to show the grand staff.

4. Reintroduce (reinforce) treble staff, quarter and half notes, and doule bar line and repeat sign.

5. Students may work in partner pairs to work and practice for the songs. Students may work in split or duet modes via headphones.

6. Each group will be given the opportunity to volunteer in performing their songs on the keyboards for the whole class.

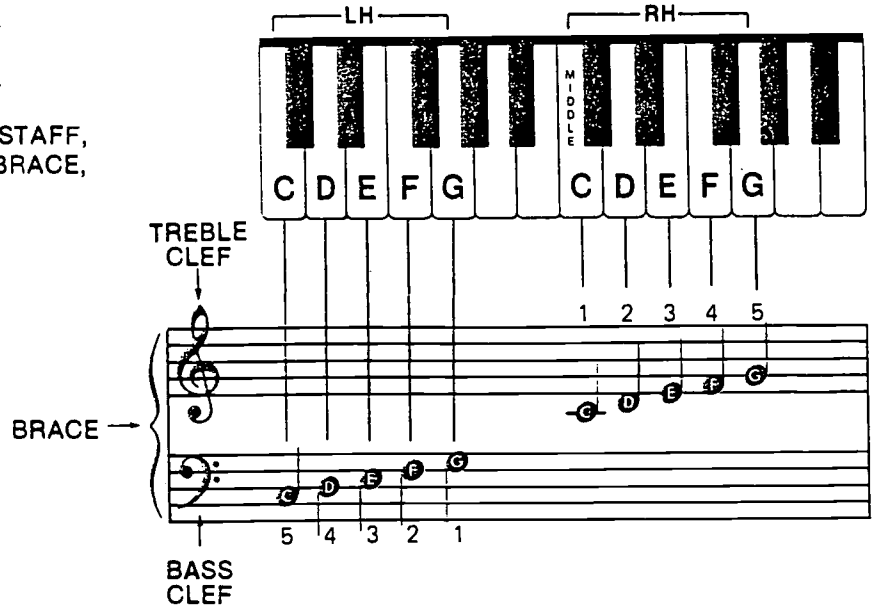
7. Repeat the above lesson plan for the Aura Lee song portion.

Lesson extension:

Have students transpose their two songs into G major poistion if they have been successful with the C major position. Students may want to write from their existing songs (in C major pentachord position) into the key of G major pentachord position (supply staff paper).

The Grand Staff

The BASS STAFF & TREBLE STAFF, when joined together with a BRACE, make up the **GRAND STAFF.**



TIME SIGNATURE

Music has numbers at the beginning called the **TIME SIGNATURE.**

4 means 4 beats to each measure.

4 means a **QUARTER NOTE** (Crotchet) ♩ gets one beat.

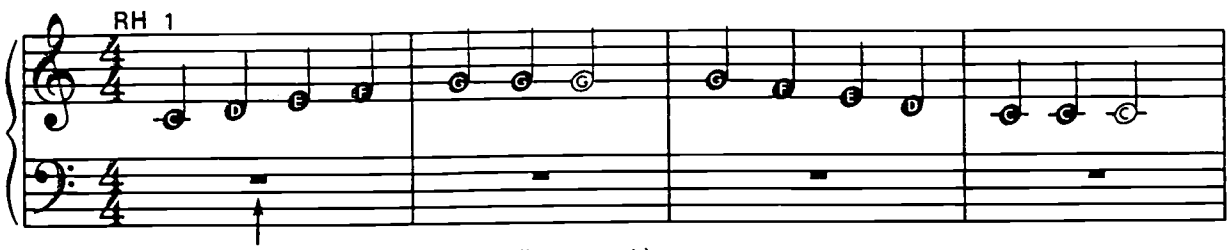
Track 6

PLAYING ON THE GRAND STAFF

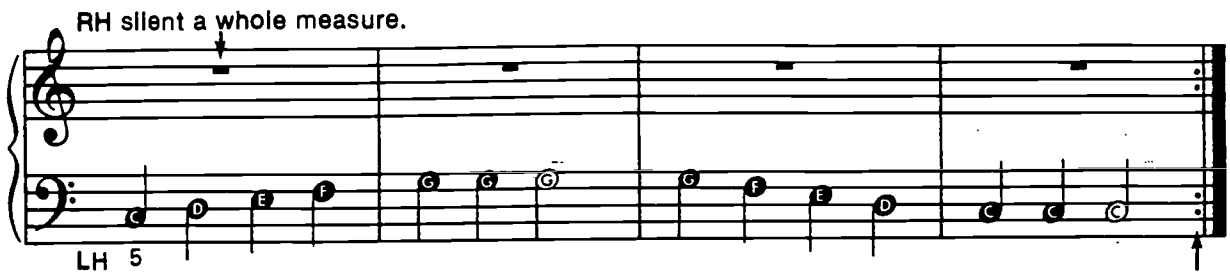
Auto: OFF Register: PIANO
Rhythm: OFF Sustain: ON

Only the starting finger number for each hand is given.
The following practice procedure is recommended for the rest of the pieces in this book:

1. Clap (or tap) & count.
2. Play & count.
3. Play & sing the words, if any.



This sign 𝄻 is a **WHOLE REST** (Semibreve rest.)
LH is silent a whole measure!



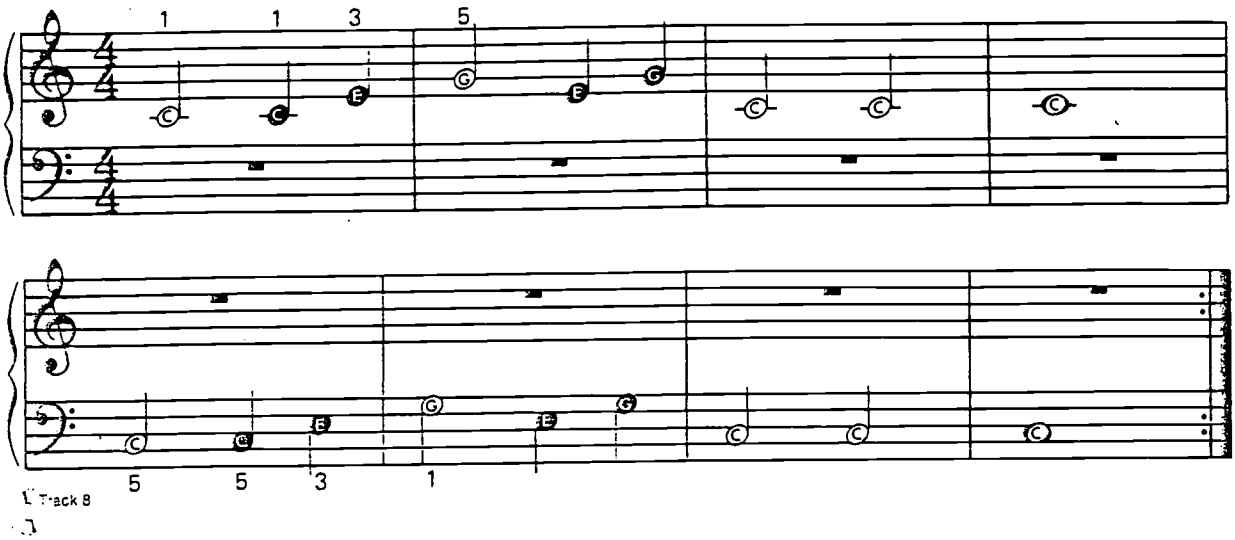
The DOUBLE DOTS mean
REPEAT FROM THE BEGINNING

ROCK-ALONG

Track 7

Auto: OFF
Rhythm: OFF

Register: GUITAR or PIANO
Sustain: ON



Track 8

Appendix Q

Lesson #12

Songs: Mexican Hat Dance and Rockin' Intervals

Objective: Utilize music literacy skills to play and interpret musical compositions, and to compose accompanying lyrics to learned songs.

Targeted intelligence:
Visual/spatial, intrapersonal, verbal/linguistic in using language (lyrics) and reading

Materials:
Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards

Procedure:

1. Review C, G, and F major pentachord positions on keyboards and use of correct hand and finger placement.

2. Introduce: Mexican Hat Dance as found in the method book. (follow directions from book)

3. Tell students "If you were to understand what was being sung, what lyrics (words) would you hear?

4. Students create lyrics by taking phrase by phrase (simple quarter/half note, repeated pattern).

5. Each group will perform (play) and sing their new lyrics. Encourage each student to participate by doing some part of the performance (sing, play, create movement – dramatize lyrics, etc.).

6. On the overhead explain what harmonic intervals are (two notes played and heard simultaneously). Harmonic intervasl are heard and written by either two or three notes apart.

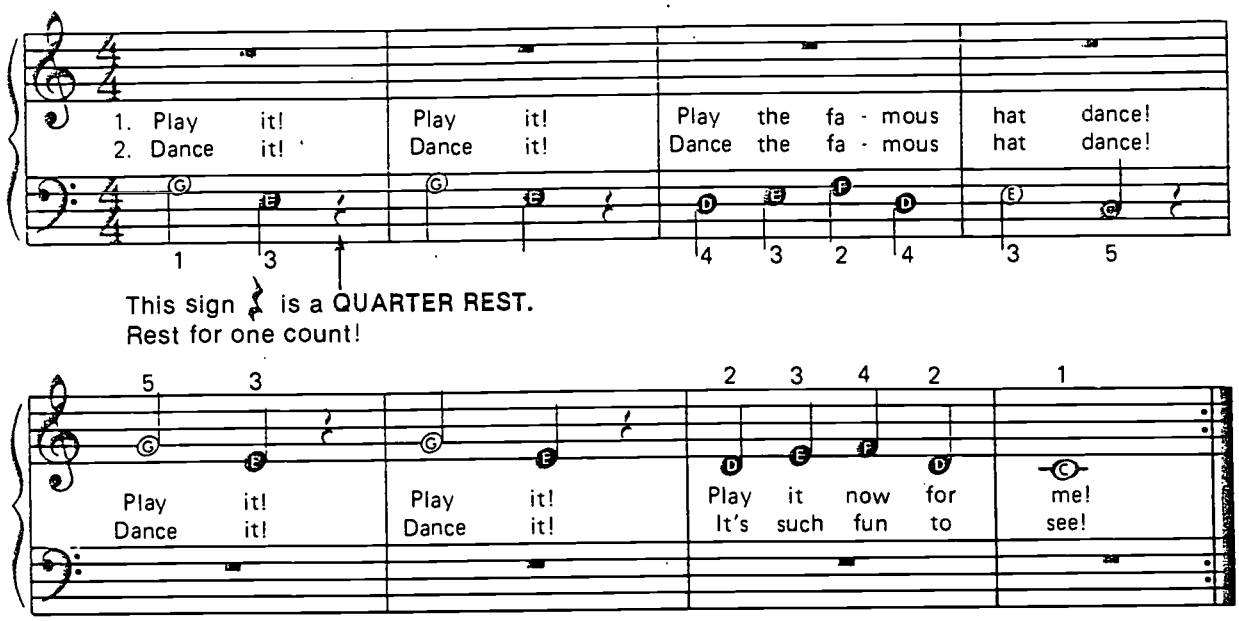
7. Review quarter rest and forte *(f)*.

7. Continue with introducing the song Rockin' Intervals, discussing the use on second and third harmonic intervals witin the melody.

MEXICAN HAT DANCE

Auto: OFF
Rhythm: OFF

Register: VIBES, PIANO or MUSIC BOX
Sustain: OFF



Adding AUTOMATIC RHYTHM

You can now add the sound of DRUMS to *ROCK-ALONG* and *MEXICAN HAT DANCE!*

The RHYTHM section is controlled by START and STOP buttons. On many instruments, this is combined in one START/STOP button.

1. Use SWING* rhythm. Turn the volume of the Rhythm section up about half-way. Press the START button.
2. The speed of the rhythmic beats is determined by the TEMPO setting. Adjust the tempo to a moderate speed by counting "1-2-3-4" and matching the tempo as nearly as you can.
3. Listen to a few measures, then play along.

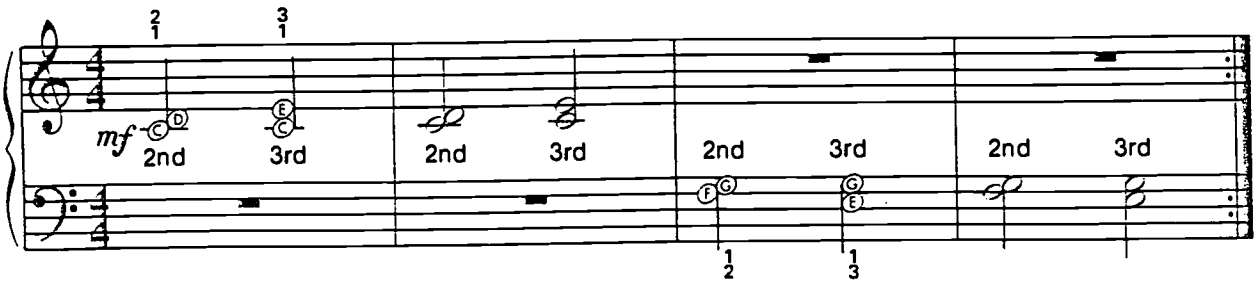
*SWING is used here, rather than ROCK 'N' ROLL, because it is a simpler rhythm. Try ROCK 'N' ROLL also, if you wish.

Harmonic Intervals

Notes played TOGETHER make **HARMONY.**
We call the intervals between these notes **HARMONIC INTERVALS.**

Play these HARMONIC 2nds & 3rds. Listen to the sound of each interval.

Auto: OFF Rhythm: OFF Register: PIANO Sustain: ON



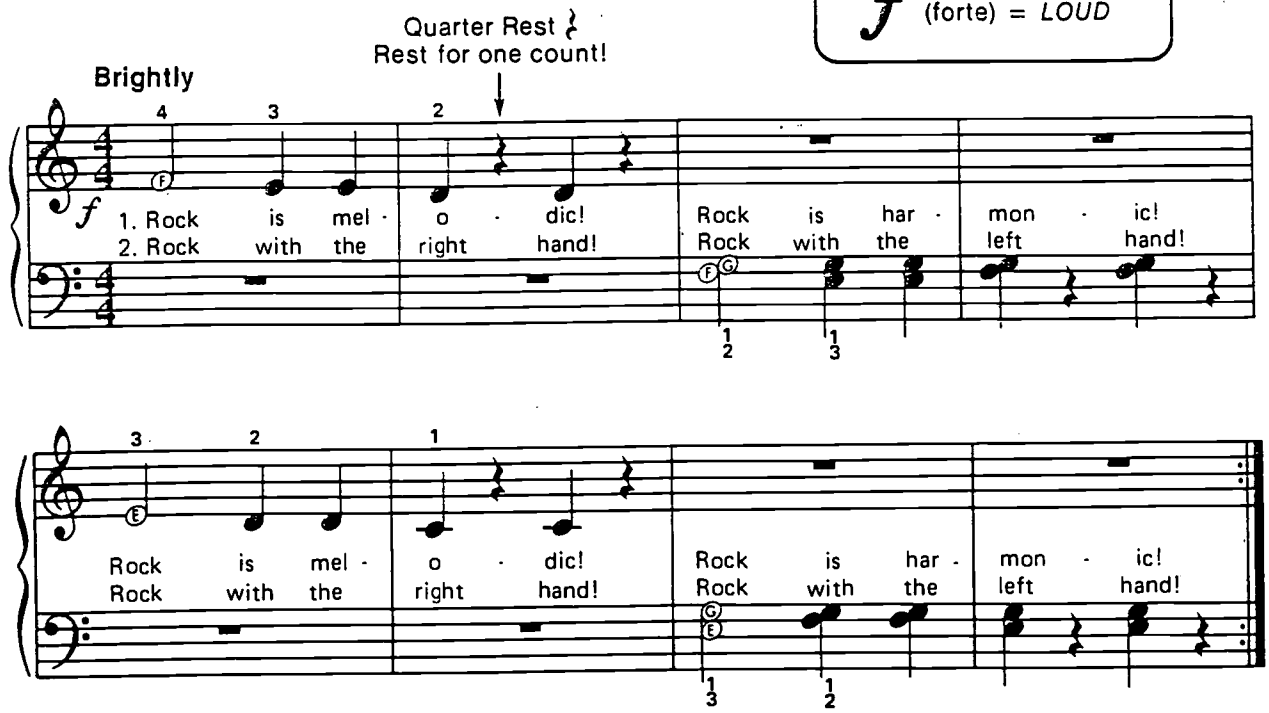
Track 11

ROCKIN' INTERVALS

Auto: OFF Rhythm: OFF Register: PIANO, GUITAR or ORGAN Sustain: OFF

Play slowly at first, counting aloud.

f (forte) = *LOUD*



IMPORTANT! Add SWING (and/or ROCK 'N' ROLL) rhythm. Use a moderate tempo at first. Later you can play a little faster, if you wish.

Appendix R

Lesson # 16

Songs: Good King Weceslas and Jingle Bells

Objective:

Develop skill in chord acquisiton and chordal accompaniment within a given song

Targeted intelligence:

Logical, visual/spatial, verbal/linguistic, bodily/kinesthetic (read, interpret and play songs accurately)

Materials:

Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards

Procedure:

1. Review C, G, and F major pentachord position warm-up on keyboards (use correct hand and finger placement).

2. Introduce: Good King Wenceslas as found in the method book (follow notation from book)

3. Have students listen to the CD and have them sing along with the song.

4. Have students read the melody and search for seconds and thirds. The teacher will ask: "Did you find any other intervals or different movements within the melody?"

5. Have students locate all the new intervals of a fourth or a fifth.

6. Have students show the instructor with open hands the five lines of the music staff (five fingers). Students will show step, skip, and leap movement on their finger staff. This should be done with both hands as switching staves. Point to spaces and lines on the finger staff and locate the pitches from the song melody. This may be done with the melody memorized by singing the note names and moving the index finger of the other hand over the lines and spaces of the staff.

7. Students may work in cooperative groups and practice the short song "My Fifth" to help students find and practice the open fifth hand position (pinky finger to thumb). Tell the students that a fourth is from the thumb to their ring finger.

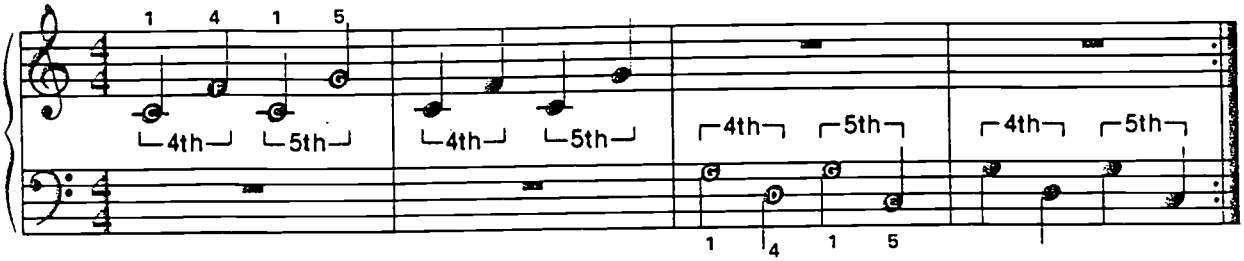
8. Introduce Jingle Bells and the left hand "open fifth" position. Have student play the left hand accompaniment with the C chord. Discuss and show (on screen) the 1-3-5, C chord position. Practice the right and left hands separately, then together.

Melodic 4ths & 5ths

Play these MELODIC 4ths & 5ths.

Auto: OFF
Rhythm: OFF

Register: PIANO
Sustain: ON



Good King Wenceslas

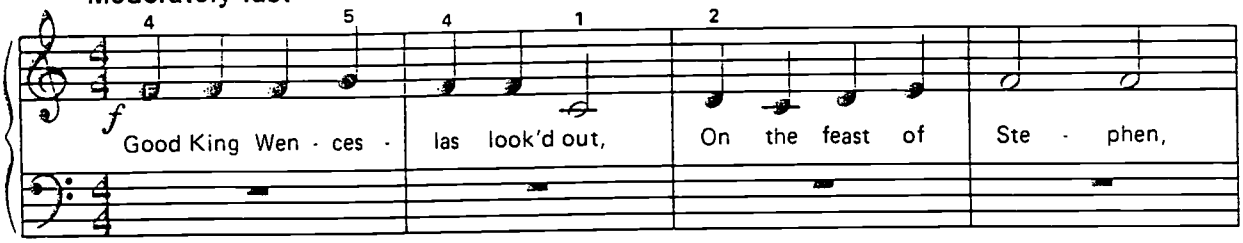
Track 12

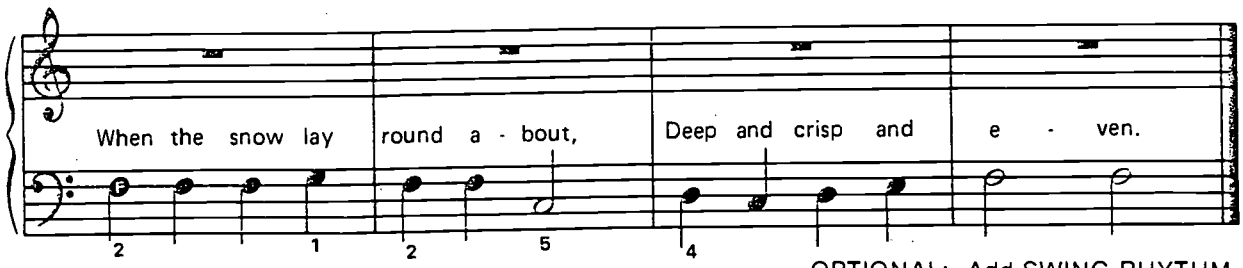
Find the 4ths before you play!

Auto: OFF
Rhythm: OFF

Register: VIBES. PIANO or MUSIC BOX
Sustain: ON

Moderately fast





OPTIONAL: Add SWING RHYTHM.

My Fifth

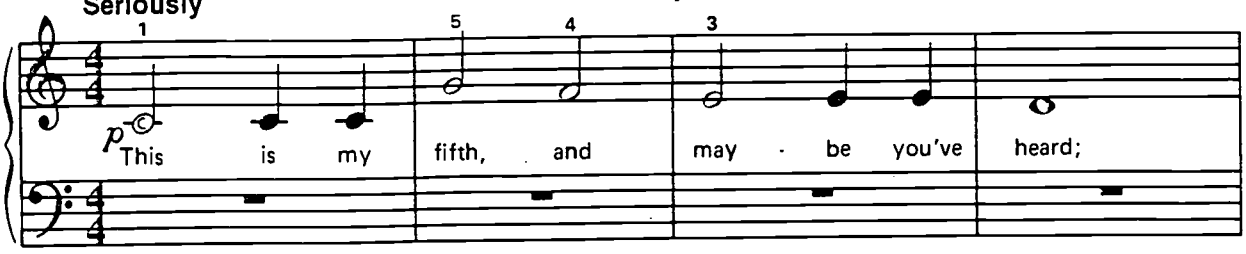
Track 13

Find the 5ths before you play!

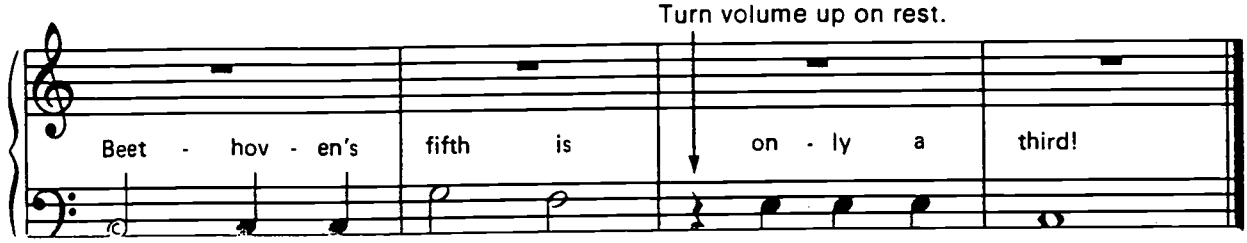
Auto: OFF
Rhythm: OFF

Register: ORGAN or TRUMPET
Sustain: OFF

Seriously



Turn volume up on rest.

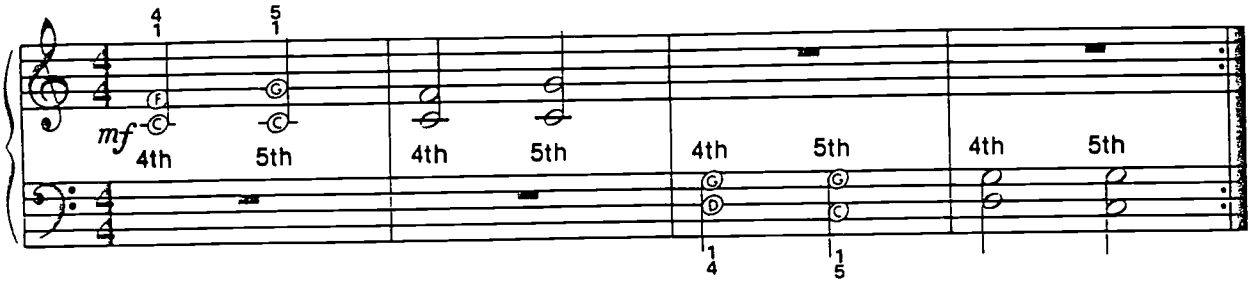


Harmonic 4ths & 5ths

Play these HARMONIC **4ths** & **5ths.**

Auto: OFF
Rhythm: OFF

Register: PIANO
Sustain: ON



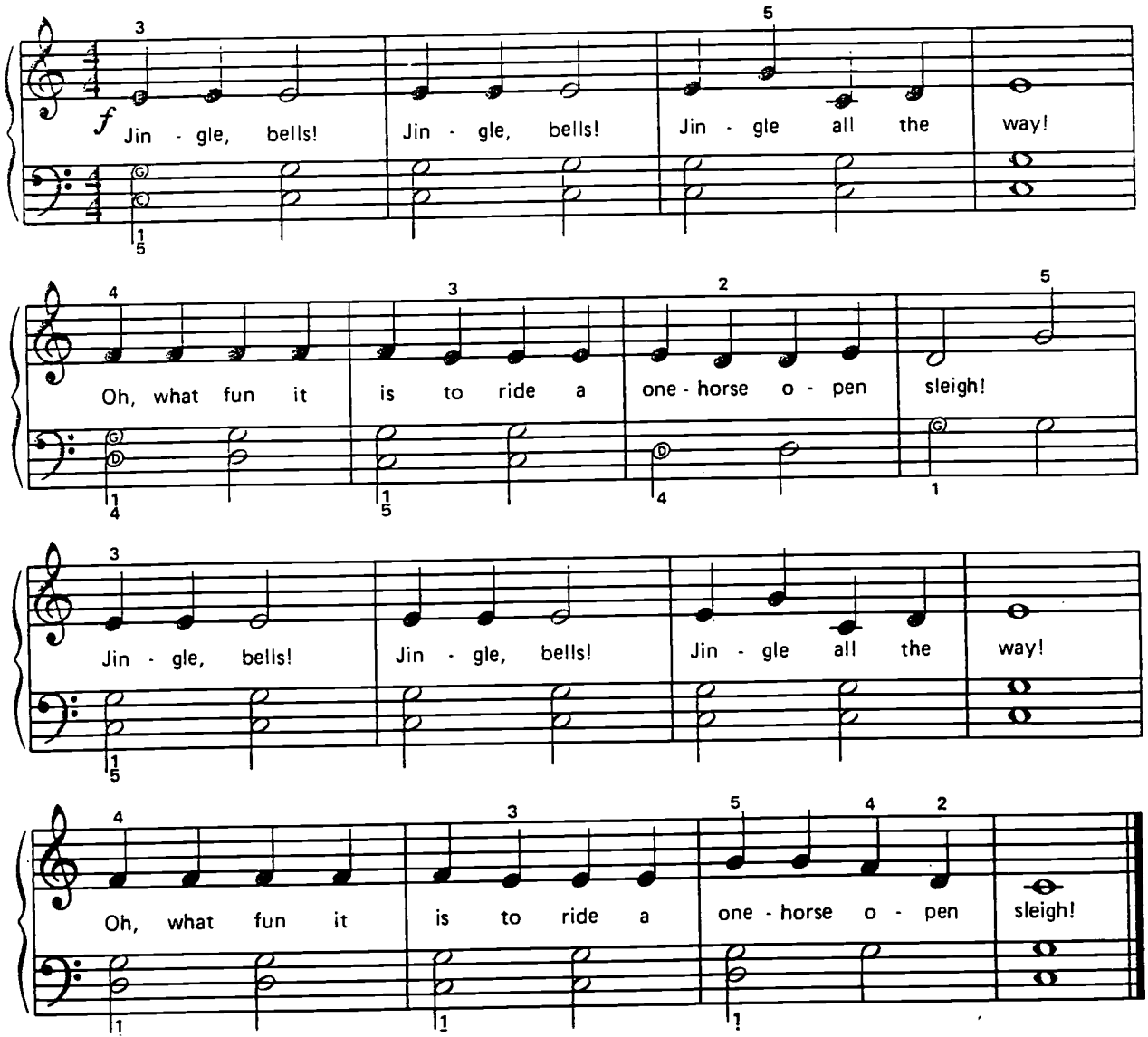
JINGLE BELLS

Track 14

1. Play RH alone, then LH.
2. Play hands together.

Auto: OFF
Rhythm: OFF

Register: VIBES, PIANO or MUSIC BOX
Sustain: ON

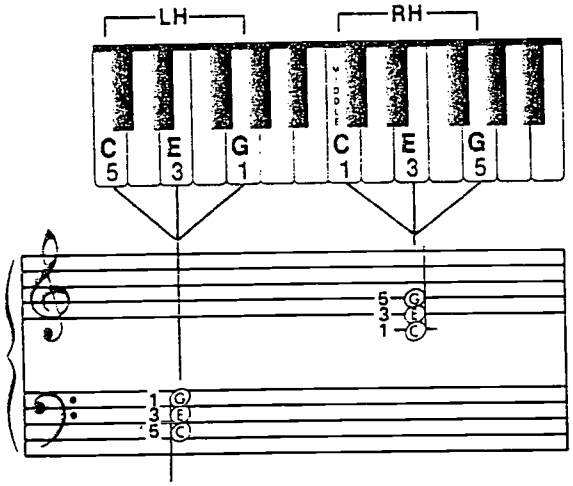


The C Major Chord

To really understand what you are doing when you play "single finger" chords, and to improve your skills as a musician, it is important that you learn to form your own chords by playing all the notes yourself, with RH as well as LH. Begin now to learn each chord as it is presented, and you will find greater enjoyment in your playing. You will also be building a good musical foundation that will enable you to move on to a larger keyboard instrument, such as a piano, organ or synthesizer.

Play this page with Auto OFF and Rhythm OFF.

The **C MAJOR CHORD** is made of three notes: **C E G.**

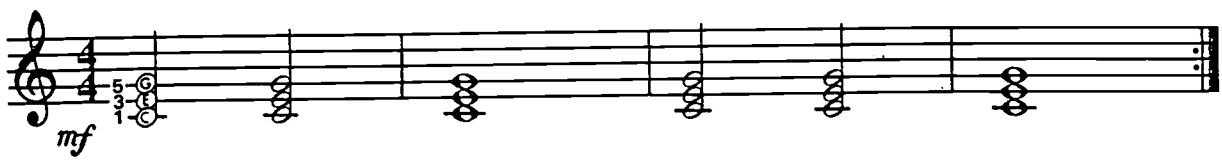


Be sure to play all three chord notes exactly together, with fingers nicely curved.

Choose any Register. Registers such as ORGAN, TRUMPET, CLARINET, VIOLIN (those named for wind instruments or bowed instruments) will sustain the chords as long as you hold the key down. Registers such as PIANO, BANJO, GUITAR, VIBES or HARPSICHORD will gradually fade away.

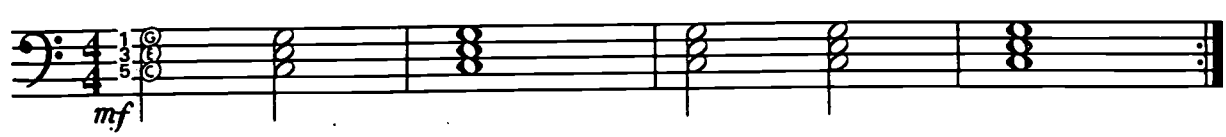
C MAJOR CHORDS for RH

Play & count.



C MAJOR CHORDS for LH

Play & count.



Appendix S

Lesson #17

Songs: Largo (New World) and Mary Ann

Objective:

Develop skill in chord acquisiton and chordal accompaniment within a given song

Targeted intelligence:

Logical, visual/spatial, verbal/linguistic, bodily/kinesthetic (read, interpret and play songs accurately)

Materials:

Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards

Procedure:

1. Review C, G, and F major pentachord position warm-up on keyboards (use correct hand and finger placement).

2. Review the C, G and F major block chords (1-3-5) for both hands.

3. Introduce the G7 chord (on the overhead projector) as pictured in the textbook. Students will play the chord in both hands. They can guide themselves through logically by using the diagrams and keeping the same hand position solid.

4. Introduce: Dvorak's "New World" melody as found in the method book (follow notation from book). Have partners share the playing of the right hand melody and the left-hand C and G7 chord accompaniment.

5. Students, when ready, can try to play both hand parts simultaneously. Tell students to practice "start of phrase to end of phrase", or by one block measures.

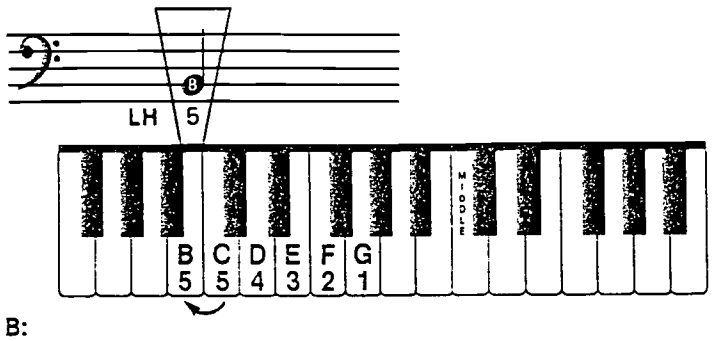
6. Introduce: Mary Ann, and have students locate intervals of a third and of a fifth in the song.

7. Practice once again, the G7 chord in both hands (preparing for the right hand chord accompaniment).

8. Practice playing the melody itself with both hands separately. Once successful at this, students can attempt to play the accompaniment in either hand and the melody in the other.

9. If time permits, the students can play for their partners or move into groups. The class in the end will play as an ensemble with the accompaniment CD.

Introducing (B) for Left Hand

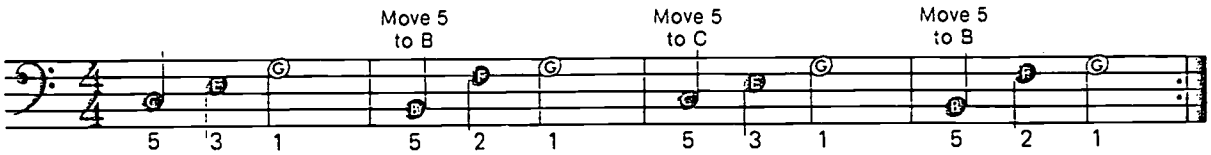


TO FIND B:

Place the LH in C POSITION.
Reach finger 5 one white key to the left!

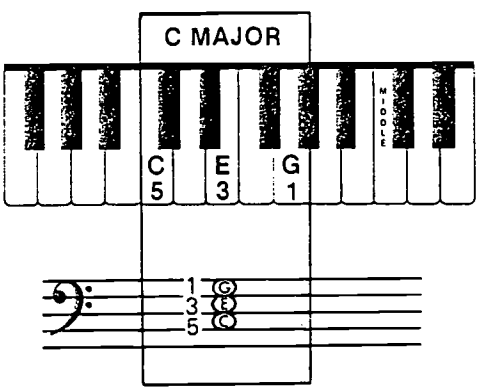
Play slowly. Say the note names as you play.

Auto: OFF Register: PIANO
Rhythm: OFF Sustain: ON

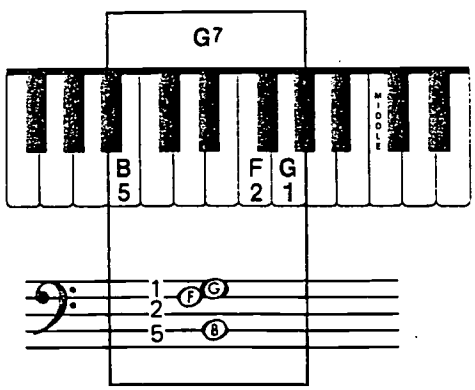


Two Important Chords

Two frequently used chords are C MAJOR & G^7.



Chord symbol: C



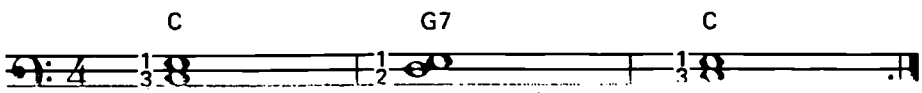
Chord symbol: G^7

Chord symbols are always used in popular music to identify chord names.

Practice changing from the C chord to the G^7 chord and back again:

1. The 1st finger plays G in both chords.
2. The 2nd finger plays F in the G^7 chord.
3. Only the 5th finger moves out of C POSITION (down to B) for G^7.

Auto: OFF **Rhythm:** OFF **Register:** PIANO **Sustain:** ON



TIED NOTES: When notes on the *same* line or space are joined with a curved line, we call them **TIED NOTES.**

The key is held down for the COMBINED VALUES OF BOTH NOTES!

COUNT: "1 - 2 - 3 - 4, 1 - 2 - 3 - 4."

LARGO *(from "THE NEW WORLD")*

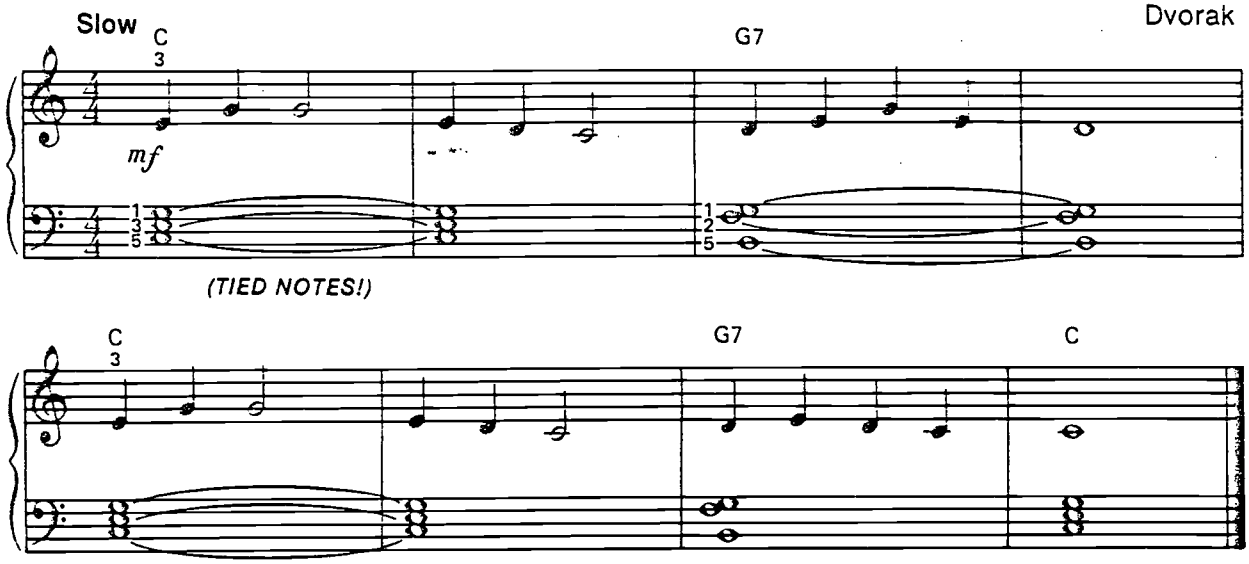
Track 20

This melody is also known as *GOING HOME.* The word *"LARGO"* means "very slow."

Auto: OFF **Rhythm:** OFF **Register:** ORGAN, TRUMPET or HORN **Sustain:** OFF

Play LH & RH hands separately at first, then together.

Dvorak



Billy Joel

With his smart, urban sensibility and ability to compose in different styles, Billy Joel has emerged as one of the most influential singer/songwriters of our time.

Lydia Criss

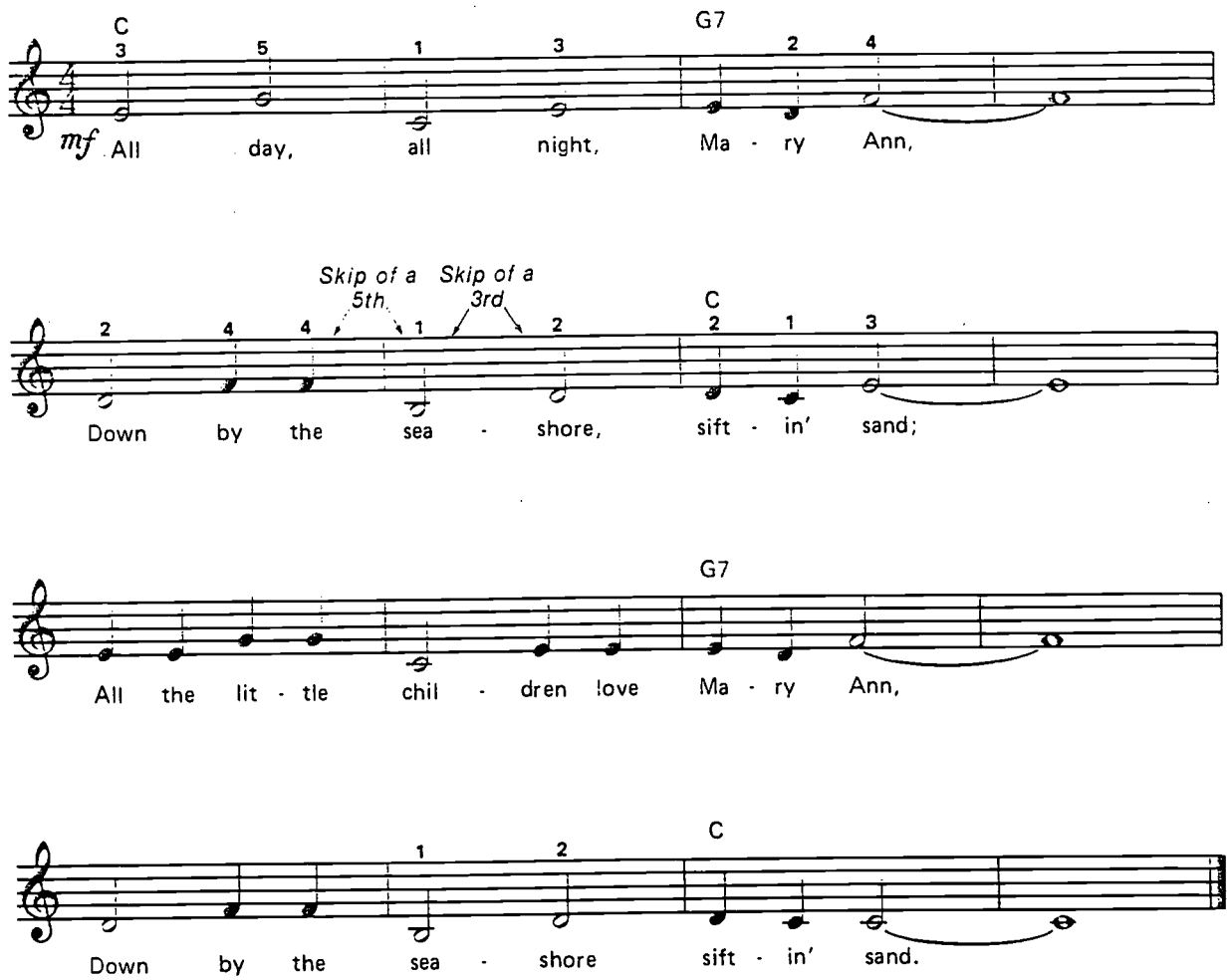
MARY ANN with RH Melody and Auto Chords

Track 23

Auto: ON "Single Finger"
Rhythm: Moderately fast SWING or ROCK 'N' ROLL

Register: TRUMPET with Sustain OFF or PIANO with Sustain ON

1. Press START/STOP, listen to Rhythm. Count to adjust tempo. STOP Rhythm.
2. Press SYNCHRO/START. then play hands together.
3. Play again. Add any other effects you wish, such as DUET, VARIATION, ARPEGGIO, VIBRATO, STEREO, REVERB, etc.*



*VIBRATO produces a fluctuation in the sound, similar to the natural vibrato of the voice, or that produced on a violin or guitar by an oscillation of the finger holding the string down.

STEREO causes the sound to be distributed between the right and left speakers to produce a stereophonic effect, providing an orchestra-like presence.

REVERB produces a slight echo effect, simulating the sound of an instrument played in a concert hall.

These features are not available on all instruments.

MARY ANN with LH Melody

Track 22

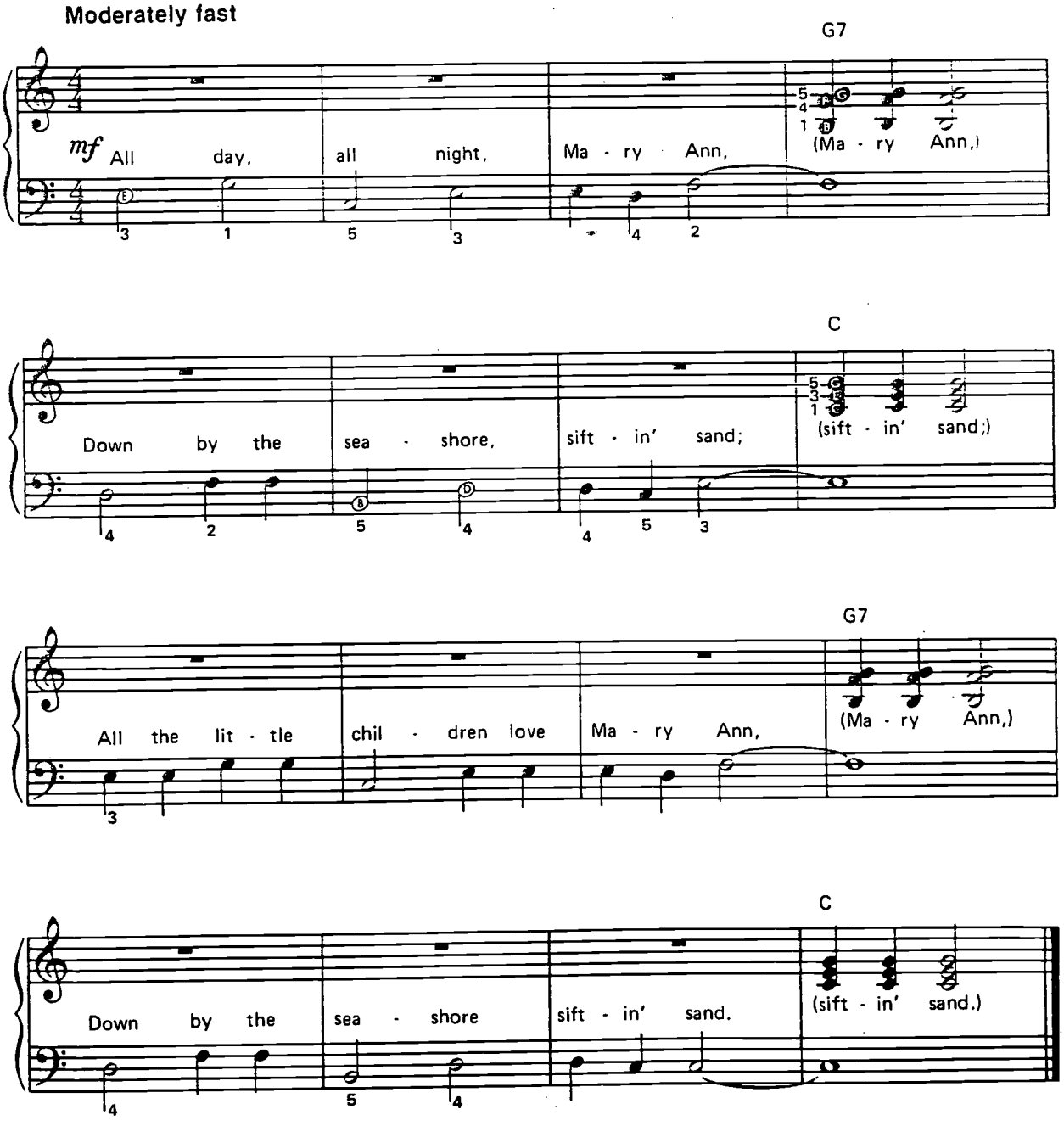
Auto: OFF
Rhythm: Moderately fast SWING

Register: PIANO, MUSIC BOX or VIBES
Sustain: ON

1. Play without Auto Rhythm. (Do not touch START or SYNCHRO/START.)
2. Add Rhythm. Listen to a few measures of Rhythm. Count to adjust tempo. STOP the Rhythm. Press SYNCHRO/START, then begin.
3. Play again with ROCK 'N' ROLL rhythm at the same tempo.

Calypso tune

Moderately fast



Appendix T

Lesson #18

Song: Saints Go Marching In

Objective:

Develop skill in chord acquisiton and chordal accompaniment within a given song

Targeted intelligence:

Logical, visual/spatial, verbal/linguistic, bodily/kinesthetic (read, interpret and play songs accurately)

Materials: Basix Electronic Keyboard Method, Yamaha MIE and Korg X5, X5D keyboards

Procedure:

1. Review C, G, and F major pentachord position warm-up on keyboards (use correct hand and finger placement).

2. Review and practice the G7 chord in both hands, playing and changing between the C and G7 chord.

3. Introduce: When the Saints Go Marching as found in the method book (follow notation
from book).

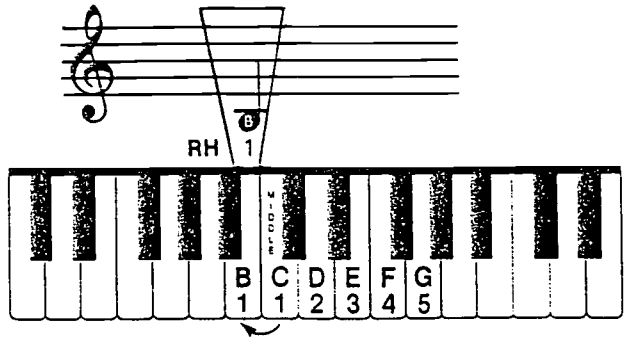
4. Have students listen to the CD and have them sing along with the song.

5. Have students locate all the whole notes at the end of each phrase. Students may play the right hand melody, but must count aloud to make sure that they are holding the key down for its four beats.

6. Have students read and practice the left hand accompaniment part separately. When comfortable with the left-hand part, have students combine both hands.

7. Students will then play and sing as an ensemble with the CD accompaniment.

Introducing (B) for Right Hand

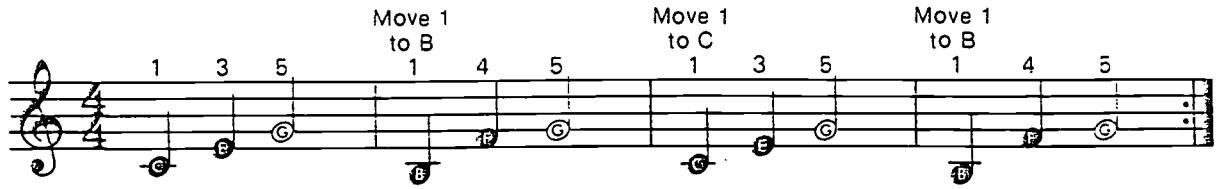


TO FIND B:

Place the RH in C POSITION.
Reach finger 1 one white key to the left!

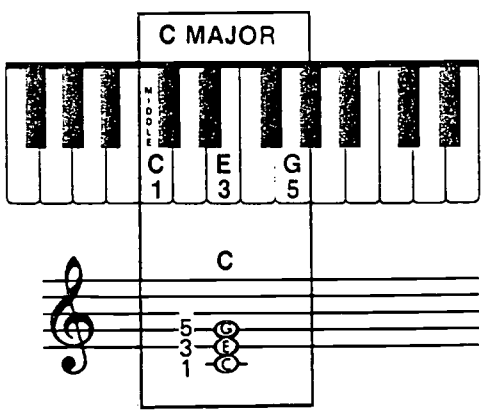
Play slowly. Say the note names as you play.

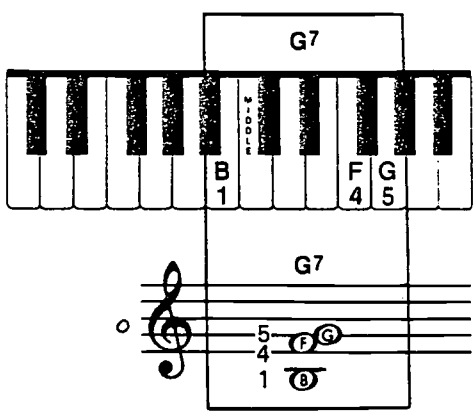
Auto: OFF Register: PIANO
Rhythm: OFF Sustain: ON



C & G7 Chords for Right Hand

It is very important to be able to play all chords with the RIGHT hand as well as the LEFT. Chords are used in either or both hands in popular and classical music.

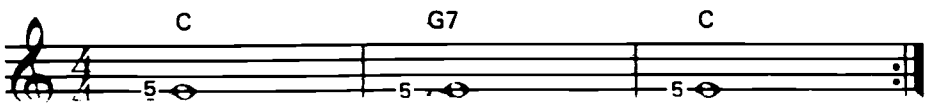




Practice changing from the C chord to the G7 chord and back again!

1. The 5th finger plays G in both chords.
2. The 4th finger plays F in the G7 chord.
3. Only the 1st finger moves out of C POSITION (down to B) for G7.

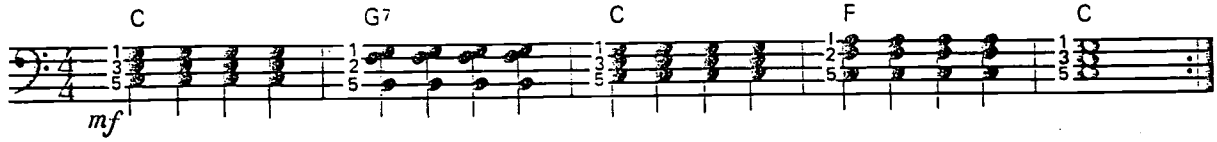
Auto: OFF Rhythm: OFF Register: PIANO Sustain: ON



Warm-Up using C, G7 & F Chords

Auto: OFF Register: TRUMPET
Rhythm: OFF Sustain: OFF

Practice SLOWLY at first, then gradually increase speed.

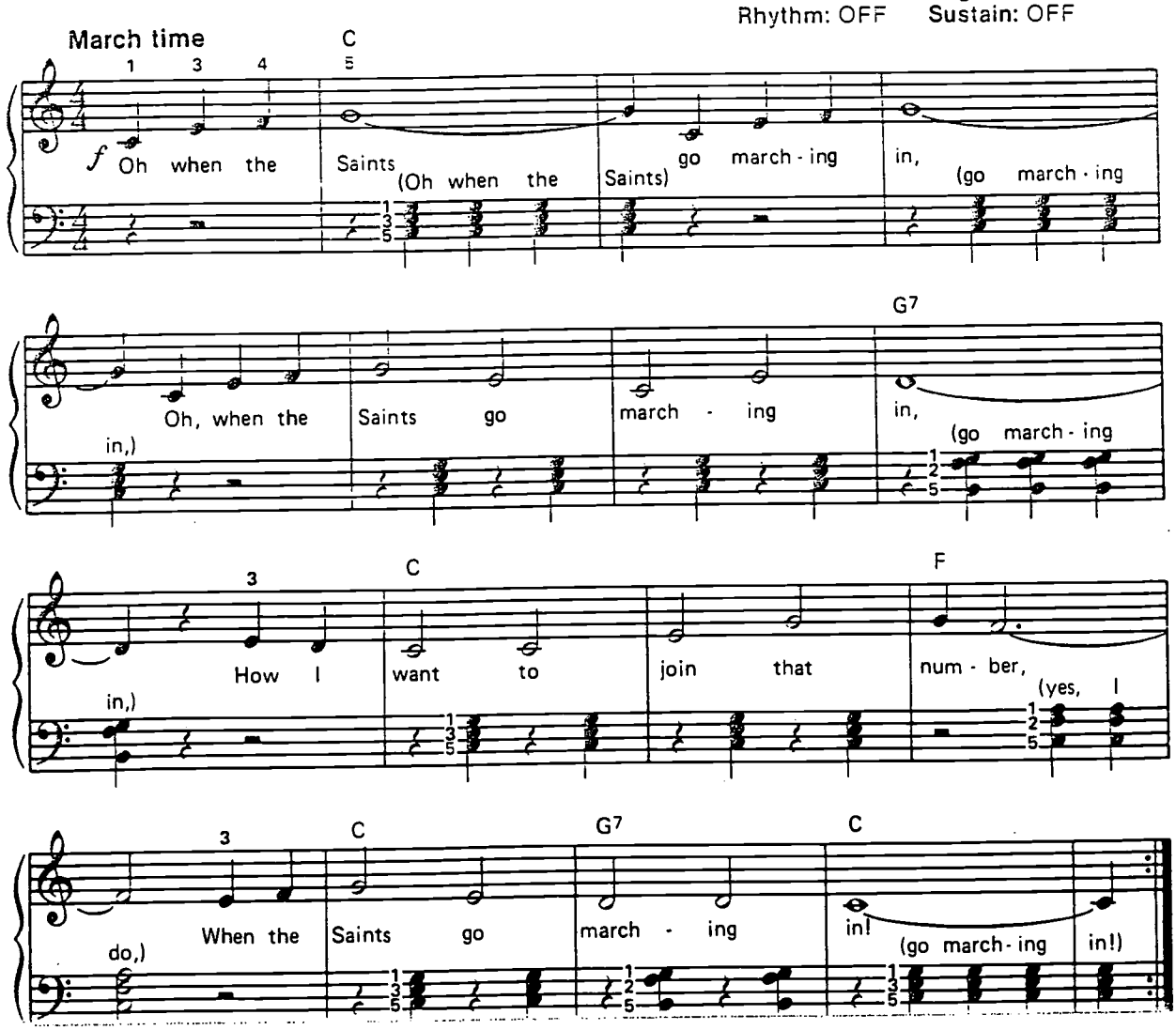


INCOMPLETE MEASURE:
Some pieces begin with an INCOMPLETE MEASURE. The 1st measure of this piece has only 3 counts. The missing count is found in the last measure! When you repeat the whole song, you will have one whole measure of 4 counts when you play the last measure plus the first measure.

When the Saints Go Marching In

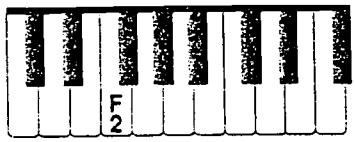
Track 27

Auto: OFF Register: TRUMPET
Rhythm: OFF Sustain: OFF



The Single Finger F Major Chord

REMINDER: When Auto is ON, you can make the Single Finger F MAJOR CHORD by playing only ONE key. Play the lowest F key on your instrument with LH 2.



Track 28

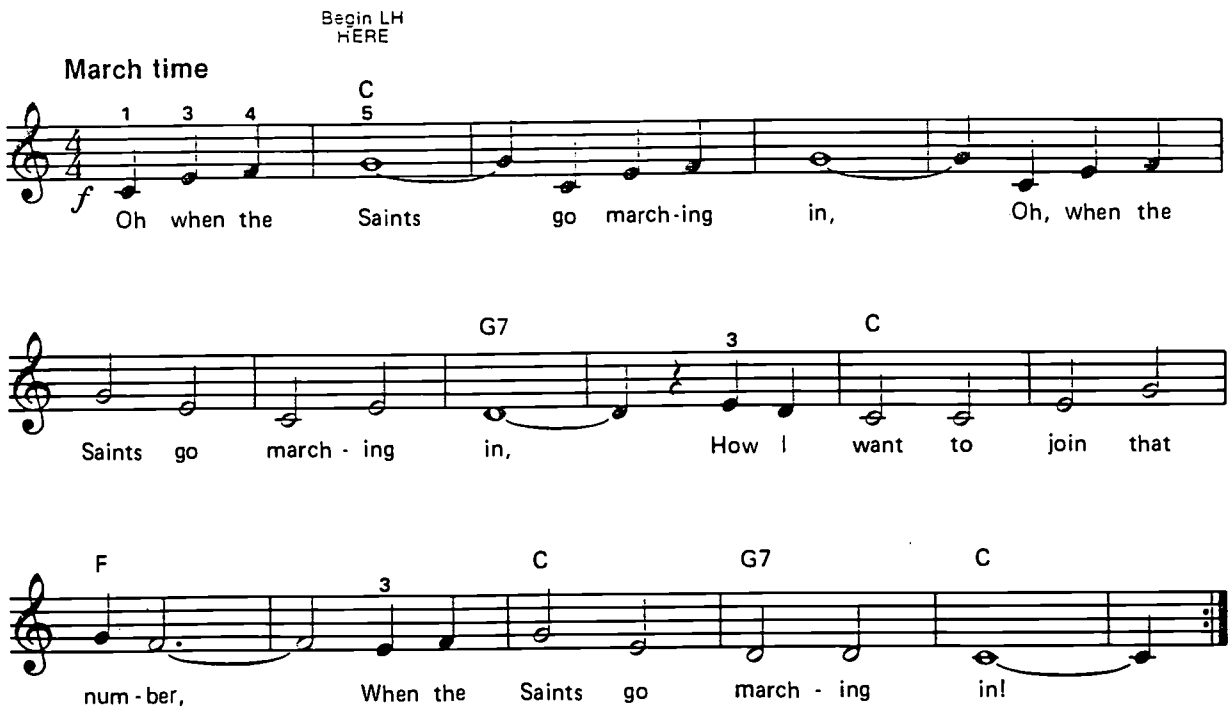
When the Saints Go Marching In

with Automatic Chords & Rhythm

You will enjoy playing this piece with Auto Rhythm.
Select a march-like rhythm. If you select MARCH, use a rather SLOW tempo at first.
(On some instruments, MARCH rhythm beats in double time!)

Auto: ON "Single Finger"
Rhythm: MARCH, SWING or POP
Register: TRUMPET, CLARINET, SAX or TROMBONE
Sustain: OFF

1. Start the Rhythm and count "1-2-3-4" for a few measures to adjust the tempo to a comfortable speed. Stop the Rhythm.
2. Play with hands together. Press SYNCHRO/START. Play the RH "pick-up" notes, then play the 1st LH key exactly on the note above which the symbol C appears.



3. Play again. Add any other effects you choose, such as DUET, VARIATION, ARPEGGIOS,

Appendix U

MusicShop

Introduction to the program menu

Objective:

Develop technical skill to facilitate music composing
Introduction to MusicShop program

Targeted Intelligence:

Intrapersonal, verbal/linguistic, interpersonal

Materials:

Macintosh computer(s), X5 and XD synthesizers, student handout on MusicShop program buttons

Procedure:

1. Students will experience music class as an open lab period, where they can locate and explore the functions (buttons) of the MusicShop program.

2. The instructor will serve as a facilitator to student creativity (low teacher-control).

2. Pass student handout about the MusicShop homepage

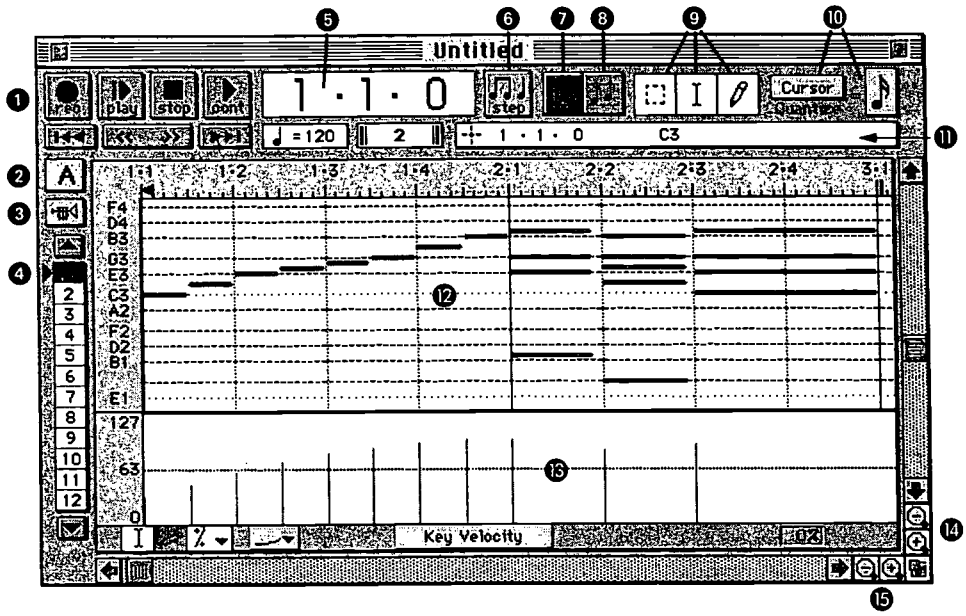
3. Students will be allowed to go down the list of button functions and locate them.

4. Student can create sound-scapes (graphic view of student selected sounds) by manipulating sounds from the trumpet icon and modes of the already learned X5 and X5D synthesizer.

Name_____
Teacher _____
Room_____

Student Handout

MusicShop
Homepage – Graphic View



❹ Track Bar, specifies which tracks are viewed and edited.

❺ Counter.

❻ Step Record button, opens Step Record Window.

❼ Strip Chart button, opens Strip Chart.

❽ Edit View button for switching between Notation and Graphic views.

❾ Cursor options, including marquee, I-beam and pencil tool.

❿ Quantize options for cursor, edits, or playback (left pop-up); choose rhythmic value in right pop-up.

⓫ Status bar for displaying cursor location, note characteristics, or sequence information.

⓬ Graphic display of notes. Use ❽ to switch to Notation view.

⓭ Strip Chart, currently displaying key velocity. Close the Strip Chart with ❼.

⓮ Vertical zoom buttons.

⓯ Horizontal zoom buttons.

❶ Transport controls for record, play, stop, continue, skip forward/back, and shuttle.

❷ Sequence Selector, specifies the current sequence.

❸ Patch Selector, selects patches for the current track.

Appendix V.

MusicShop

Introduction to the program menu

Objective:

Develop technical skill to facilitate music composing
Introduction to MusicShop program

Targeted Intelligence:

Intrapersonal, verbal/linguistic, interpersonal

Materials:

Macintosh computer(s), X5 and XD synthesizers, student handout on MusicShop program buttons, Handout to recording on MusicShop, and songs: Ode to Joy and Aura Lee

Procedure:

Students will read and follow the directions to "record a track," so that students can record their songs.

Start

1. In the track bar, click on track 1, and then play some notes on your keyboard.
2. From the pop-up list, select a device you would like to use for the tracks in the file.
3. Click the remap button to accept the remappings.
4. Choose file save as to save to this file. Title it as the title of your chosen song.

Recording and changing the Track

1. Open your saved file.
2. Press and hold the sequence selector.
3. Select a sequence.
4. Before playing your sequence or melody, choose some appropriate patches(tone colors).
5. Repeat this for each track
6. Clickthe play button to play the sequence or melody.
7. Go to graphic view.
8. Click "skip back" to make sure your are viewing the beginning of the track.
9. Click on one of the tracks you want and then press "Record" and play your melody.
10. Choose "select all".
11. Click on the play button to audition your melody.
12. If you like this setting, click on "save". If not, try the process again.

Appendix W
Band-in-a-Box

Objective:

Develop technical skill to facilitate music composing
Introduction to MusicShop program

Targeted Intelligence:

Intrapersonal, verbal/linguistic, interpersonal

Band in a Box - Introduction

Name_____ Music Workstation Number_____

1) Click on **Band in a Box** on the panel.
2) Menu - JK - Scroll to and select **When Johnny.MGL**
3)Click on **Play** to hear song. (Always click on **Stop** to stop the song at any time during this worksheet.)
4) Follow the chord chart. Do you see major, minor, and 7th chords? List them.

5) Find the blue circle, blue square and the pink "M". What do you think they stand for?

6)Click on **Notation,** then **play**. Describe what changed on the screen.

7) Click on **Notation** to return to the chord chart.
8) Changing patches. Click **Mel, Play,** then click on **# 1 - 10.** Notice the changes on the screen and the symbol it affects on the computer's piano. Which symbol follows this part? _____

Click on **Bass, Play**, click on **#1- 10**. Which symbol? _____
Click on **Piano, Play, #1 - 10**. Which symbol?_____

9) Is it possible to improvise with the song? Try it. How did you do it and what changed on the computer screen?

10) Click **Hold**. Click on **Hold** again. What happened?

11) Go to **Sty**, Scroll to and Click on **FUNKSEV2.STY**. Click **"yes"** to Ok to change melody to Straight feel. Click **Play.**

12) Go to **Sty**, Scroll and click on **CARIBEAN.STY**. Click **"yes"** to straight feel. **Play** What is new on the computer's piano?

13) Click on **Guitar**. To change the patch, follow the directions in #8.

14) Click on the **M** that is next to the "f" and <no harmony>. Select **13Trumpet/Sax (3rds)** & click **OK**. Click **Play**. What changed and where on the screen did it indicate this change?

Appendix X.01

MusicShop

Continuing with an Introduction to the program menu

Objective:

Develop technical skill to facilitate music composing
Introduction to MusicShop program

Targeted Intelligence:

Intrapersonal, verbal/linguistic, interpersonal

LESSON DESCRIPTION

4

Students will learn how to play the song Are You Sleeping in the key of C Major, using appropriate keyboard fingerings. Students will identify the concept "round," or "canon," as "a musical phrase or melody that can be played by two or more instruments, or voices, starting at different intervals." Students will then cut and paste the melody in the sequencer in order to create a 3-part round. Students can also embellish the arrangement by adding sustained chords or notes based on the tonic (Do - Mi - Sol).

Materials:

Print:

- Printed score of the song *Are You Sleeping* - with measure numbers.

Teacher Disk:

- A teacher-only file (*L4T Sleeping?*) that has a sample finished product - a three-part round with different timbres assigned to each part.
- Additional arrangement (*L4T Sleep DEMO*) with added sustained tonic chords and percussion hits.

Student Disk:

- One sequenced MIDI file for students containing the song *Are You Sleeping* with the melody recorded on Track One (*L4S Sleeping?*). The file has three separate tracks, labeled as follows:

Track	Description
Track 1	Part 1 (recorded)
Track 2	Part 2 (blank)
Track 3	Part 3 (blank)

Concepts:

Ms Copy and Paste the main melody several times to create a round.

GI Introduce **Real-Time** recording.

Ms, K Assign **MIDI Channels**, reinforcing that only one timbre can be recorded on a single track.

Performance:

- Students play the melody, *Are You Sleeping*.
- Record the melody, *Are You Sleeping*, in "real-time."

Arranging / Creating:

- Students **COPY** and **PASTE** the entire melody several times in order to create a "round" or "musical canon."
- Students insert appropriate **Program Changes** for each voice, or part.
- Students insert **Dynamic** and **Tempo Changes**, as well as other electronically controllable musical elements, in order to make the arrangement sound "realistic."

Composing:

- Students enter sustained notes based on the tonic chord (do - mi - sol) in order to embellish, or further orchestrate, the arrangement.

Outcome:

- Each student will have a completed arrangement that includes:
  - a minimum of 3 separate parts; and,
  - 3 different timbres.
- Other aspects learned during earlier sessions, like ritardando, diminuendo, and crescendo, should also be considered as part of the les-

LESSON PLAN

Students learn to play the song *Are You Sleeping* with the right hand and/or left hand, using the appropriate fingerings.

Students listen to the 3-part version of *Are You Sleeping*, and the teacher then asks them what they heard. Anticipate answers like: "The melody is repeated at different times," or "The melody is a round."

As a group, students then identify the style of the piece as a "round," or "musical canon."

Students load their version of *Are You Sleeping* (the file includes the melody only, on Track 1).

The teacher plays a finished, sequenced version (*L4T Sleep DEMO*) for the class, and asks the students to determine in what measure the second and third parts enter.

The teacher asks the students to **COPY** and **PASTE** the melody into the appropriate measures.

The teacher explains that in order to get different instruments to sound simultaneously, each part (or track) must be located on a separate MIDI channel.

Students assign the following MIDI channels to their respective tracks:

- Track 1 = Channel 1
- Track 2 = Channel 2
- Track 3 = Channel 3

Students then select different timbres for each individual part (track).

Students save their work to disk.

Once students have completed their arrangements, put them in large groups, in GEC Quartet Mode, and have them play and discuss each other's work.

ENRICHMENT

- The students play an arrangement of *Are You Sleeping* with added sustained notes and percussion sounds, and the teacher explains that the tonic chord can be used throughout the piece to add interest to the arrangement.
- The students insert sustained notes based on the tonic chord (do - mi - sol) into their version of the sequence, in order to enhance quality of the arrangement.

Appendix X.02

MusicShop

Experimenting with Instrumental Accompaniment Tone Color Tracks
Student/teacher choice

Objective:
Develop composition techniques that incorporate melodic and chordal reading/playing

Targeted Intelligence:
Visual/Spatial

LESSON DESCRIPTION

8

Students will play the melody of the song When the Saints Go Marching In. They will also orchestrate the composition with different brass instruments each time the melody recurs, and add vibrato (controller data) to their melodic performances.

Materials:

Print:
- Score of the melody, with finger patterns and the chord symbols written above the melody.
- Score of the chords (do - mi - sol).

Teacher Disk:
- Sequence of *When the Saints Go Marching In* (*L8T Saints/no Melody*)
  - Track 1: blank, for students to record melody track
  - Track 2: chords
  - Track 3: bass
  - Track 4: drums
  - Track 5: blank, for students to record vibrato
  - Track 6: blank for students to record a chordal improvisation
- Sequence of *When the Saints Go Marching In* with melody (*L8T Saints/Melody*)

Student Disk:
- Sequence of *When the Saints Go Marching In*: (*L8S Saints/no Melody*).

Concepts and Terms:

Ms Record vibrato to a separate track, same channel, demonstrating the independent nature of **Controller Data** in comparison to **Note Data**.

Ms, K Add Program Changes for each repetition of the melody.

K Use the **Joystick** or **Modulation Wheel** on the keyboard to create vibrato.

Performance:
- Students play and record the melody for *When The Saints Go Marching In*.

Arranging / Creating:
- Students assign different sounds (Programs) each time the melody is repeated in the sequence.
- Students add vibrato to the sustained notes and record this on a separate, independent track.

Composing:
- Students improvise a harmony pattern using do - mi - sol on each chord (tonic, dominant, subdominant).

Outcome:
- Students save a version of *When the Saints Go Marching In* with different brass instruments playing the melody.
- Students record vibrato on a separate track.
- Students play the melody in real-time, with the rest of the sequence as an accompaniment to their melodic performance.
- Students record an added vibrato part that affects the melody track, tastefully selecting appropriate, sustained notes.

LESSON PLAN

Teacher instructs the students to review the fingerings and notation for *When The Saints Go Marching In*.

Students play the melody, *When The Saints Go Marching In*, using the score for reference.

Have students play "live" with the accompaniment playing from your station in GEC Lecture Mode *(L8T Saints/No Melody)*. Then select certain students to perform in the Lecture for the rest of the class.

Teacher demonstrates (on the keyboard, and with a recording) the concept of vibrato, using it primarily on sustained notes.

Students select a brass sound from the General MIDI bank.

Students experiment with the Joystick and/or Modulation Wheel in order to create vibrato on sustained notes.

Students play the melody for *When the Saints Go Marching In* with the right hand, and add vibrato with the left.

Students load the sequence *When the Saints Go Marching In (L8T Saints/ No Melody)*.

Students record the melody in real-time, slowing the tempo down if necessary.

Students copy and paste the melody into each section of the arrangement.

Students orchestrate their newly created arrangement by assigning a different brass sound for each repetition of the melody.

Students record (add) vibrato that affects the melody on a separate, independent MIDI track (assigned to the same MIDI channel).

After students have saved their work, following any or all of the above five activities, put them in pairs or quartets using GEC Duet and/or Quartet Mode so they may share and learn from each other.

ENRICHMENT

• Students mix, or change volumes for various tracks, as done in previous lessons, and continue to arrange the sequence by inserting other musical events, like a ritardando, crescendo, etc.

• Students improvise a harmony pattern using do - mi - sol of each chord (tonic, dominant, subdominant).

Appendix X.0

MusicShop

Create A Multi-Track Accompaniment For A Selected Song

Objective: Develop composition techniques that incorporate melodic and chordal reading/playing

Targeted Intelligence:
Visual/Spatial

6 *Students will identify the difference between a canon (Lesson 4: Are You Sleeping) and Variations on a Ground Bass by Pachelbel. Students will listen to the Pachelbel Canon and identify the beginning of each melodic variation. Students will then assign different timbres (programs) to each variation. After orchestrating the piece, students will improvise, creating their own variations using the first 5 notes of the major scale in the key (D).*

Materials:

Print:
- Written score of the piece with the ground bass isolated at the top with keyboard fingerings.

Teacher Disk:
- Complete, mono timbral performance of the Canon in D (*L6T Canon MONO*).
- Complete performance of the Canon in D with orchestration (*L6 Canon ORCH*).
- Looped tracks (ostinati) of the ground bass and accompaniment (*L6T Bass&Acc*).

Student Disk:
- Complete performance of the Canon in D - one timbre (*L6S MONO*).
- Looped tracks (ostinati) of the bass and accompaniment (*L6S Bass&Acc*).

Concepts:

Identify the difference between a Canon and a Round.

Ms Use **Loop Record** to quickly create a canon with which to improvise.

GI Improvise real-time recordings with the looped ground bass.

Ms Punch-in improvised variations.

Performance:

- Students learn to play the two-part descending melody with their right-hands (see measures 9-12 in score).
- Students improvise different rhythms using

Arranging / Creating:

- Students insert **Program Changes** in the melody each time a new variation begins.
- Students insert a ritardando at the end of the piece.
- The teacher instructs students to take special care in inserting dynamic changes. Students should begin softly, build to a climax and end softly (the way the piece began).

Composing:

- Students use **Step Entry Mode** to record the *Ground Bass*.
- Students record a track that includes the lower notes of the thirds in measures 9-12 in the score (Do - Ti - La - Sol - Fa - Mi - Fa - Sol).
- Then students record a track that includes the upper notes of the thirds in measures 9-12 (Mi - Re - Do - Ti - La - Ti - Do).
- Students create an original set of variations using the "thirds approach" described above. Each part should be recorded on a separate track in the sequencer, and recorded in real-time.

Outcome:

- Students perform and record the ground bass, as well as their composed variations.
- Students insert dynamics and program changes, and save their personal version of *Pachelbel's Canon*.
- Students demonstrate that they recognize the difference between a canon, round, and

LESSON PLAN

Teacher plays a recording of the round *Are You Sleeping* (*L4T Sleep Demo* from Lesson 4) and asks the students to identify it as a round, or canon.

Teacher plays the complete, *Pachelbel Canon*, and then ask the students to compare it to the round, *Are You Sleeping*. The teacher also asks students to identify the canon as a different, independent form (when compared to *Are You Sleeping*). Students will hopefully comment that the title is misleading, and might more appropriately be called *Pachelbel's Variations on a Ground Bass*.

Teacher plays the file (*L6T Canon Bass&Acc*) of the solo ground bass. Tell the students that this bass line repeats over and over throughout the piece.

Teacher asks the students to mark the beginning of each variation on the score.

Students then change the program (timbre) for each variation by using the **Program Change Command** and the **Pencil Tool**.

Students input the bass part into a new file using **Step Record Mode**.

Students activate the **Loop Record Function** (in MusicShop).

Students learn to play the melody part alone, and in thirds. They should practice this with the pre-recorded bass line.

Pair students in GEC Duet Mode and have them perform the thirds as a dyad, each playing their line with a distinct orchestral timbre from one of the familiar families of instruments.

Students should then improvise a variation, playing the prescribed melody notes and adding their own rhythmic variations.

After rehearsing ideas for variations, bring the entire class into GEC Lecture Mode and let students take turns performing for the entire class (on or off headset - use the Room Monitors to play live in the room without the stereo headphones).

The students should record several variations of the melody, using rhythm as their basic variation tool.

ENRICHMENT

- Teacher demonstrates the concept of a passing tone, and has the students play and improvise similar melodic lines.
- Teacher assigns students to pairs (groups of two). One student performs the ground bass, while the other improvises on the melody. Then have students reverse performance roles.

Appendix Y

Final Music Assessment on Pentachord Unit

Name_____
Date_____
Homeroom Teacher_____

Music Assessment – 7th Grade
Major Pentachords

Directions:
You have 40 minutes to complete this assessment. Answer to the best of your ability. Complete answers you are familiar with first and remember that there are various point values to each test item.

1. Write the note names of the five finger C position. **(5 pts.)**

   Left Hand _ _ _ _ _ Right Hand _ _ _ _ _

2. Write the finger numbers of the five finger position. **(5 pts.)**

   Left Hand _ _ _ _ _ Right Hand _ _ _ _ _

3. Write the note names of the G position. **(10 pts.)**

   Left Hand _ _ _ _ _ Right Hand _ _ _ _ _

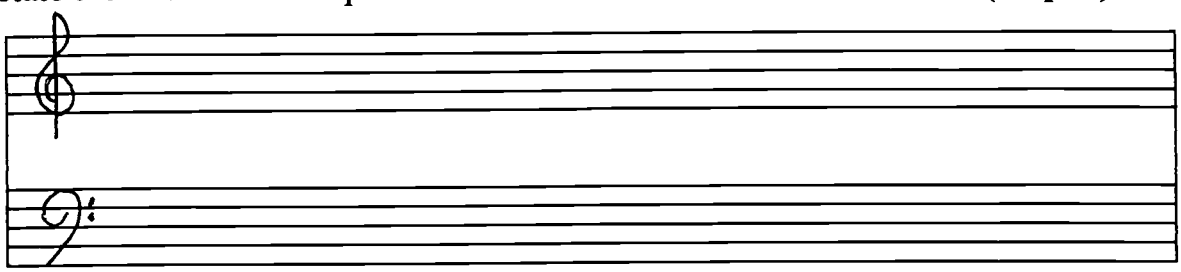
4. The notes of the music alphabet are... **(5 pts.)**

   _____.

5. Label the registers of the MIE and X5 keyboards by name. **(10 pts.)**

   _____
   _____
   _____

6. Notate the notes of the C position of both hands on the Grand Staff. **(10 pts.)**



Directions:
Answer the following true or false statements by placing a "T" for true or an "F" for false answers on the line provided in front of each item. **(2 pts. for each item)**

_____ 7. There are four registers on the MIE & X5 keyboards.

_____ 8. The F pentatonic scale consists of notes FGABC.

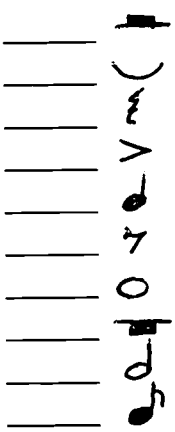
_____ 9. When transposing C position to G position, the step progression (step formula) remains the same.

_____ 10. The opposite motion of a retrograde melody is a forward motion.

_____ 11. G position is four steps below C position.

_____ 12. A glass filled with a larger amount of water sounds higher in pitch than a glass with less water.

13. Identify by matching the following. Place the correct answer letter in the provided space in the first column. **(10 pts.)**



a. Quarter note
b. Eighth rest
c. Half note
d. Whole rest
e. Eighth note
f. Quarter rest
g. Half rest
h. Whole note
i. Accent
j. Tie

Multiple Choice:
Choose the best answer by placing a circle around the correct letter Item. **(4 pts.)**

14. When transposing the C major pentachord to the key of D major, the following is true:

a) DEFGA B) DE#FGA C) DEF#GA D) DEF#GA#

Multiple Choice (continued):

15. Beethoven's "Ode to Joy" melody (9th Symphony) mostly moves by...

    a) stepwise patterns
    b) up and downward movements
    c) successive line-space motion
    d) all of the above

16. The following is true about the bass clef. The bass clef is...

    a) mostly played by the left hand
    b) played with the 12345 finger position
    c) a lower register
    d) sounds below middle C
    e) items: a, b, d
    f) items: a, c, d

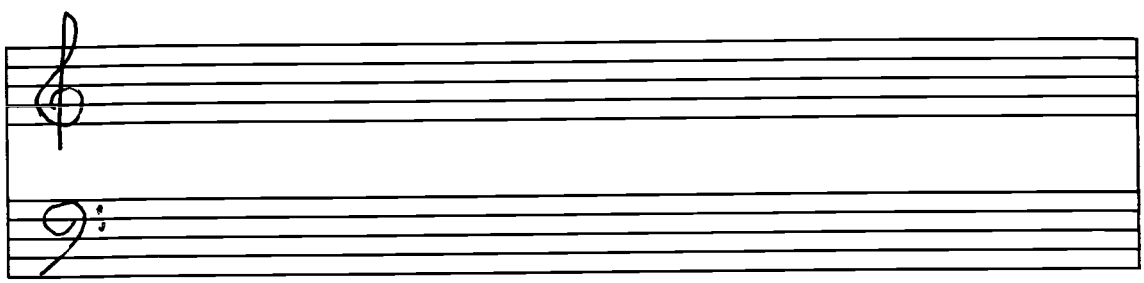
17. The following is false about the grand staff:

    a) combines many registers
    b) is played with both hands
    c) combines two registers
    d) combines low and high registers

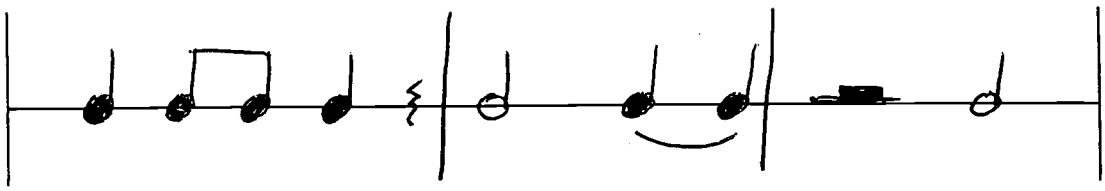
18. Listening sample: Identify this melody by its form (number of musical sections – ABA, ABBA, ETC. **(10 pts.)**

    ____ ____ ____ ____ ____

19. Notate the notes of the G position (from C major transposition) for both hands on the grand staff. **(7 pts.)**



20. Write the following rhythms from the music notation by using ta-o, ta, Ti-ti or write the counting numbers (i.e. 1,2,3+, 4+). **(10 pts.)**



— — — — — — — — — — — — —

Total test points = 100 points

Extra credit: (additional 15 points)

18. In a short paragraph, describe the process (each step) on how to transpose a C major pentachord to a G major pentachord.

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