

Changing preservice primary teachers' attitudes to music: Implications for music education practice.

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Although some school systems maintain music specialists in primary schools, the reality of the situation is that a large number of generalist primary teachers in Australia, Great Britain and the United States have the responsibility for teaching music in their classrooms. A significant amount of research from these countries has supported the notion that generalist and preservice primary teachers have a negative attitude towards and lack the confidence to teach music. This study attempted to assess whether pre-service primary teachers' attitudes toward music and the teaching of music in their classrooms might be influenced by their experiences in a music fundamentals course which was a prerequisite to a methods course. Although there is some research on developing positive attitudes towards music in preservice primary teachers via music methods classes, little has focused on the role a music fundamentals course may play in the formation of these attitudes. The preliminary findings from the study of preservice primary teachers at the University of Arizona and the University of Newcastle and the implications for tertiary teaching practice are discussed.

The Primary Generalist and Classroom Music: An Overview

While some education systems employ specialist music educators in the primary school, there are a large number of generalist primary teachers in Australia, the United States and Great Britain who have responsibility for teaching music in their classrooms. In New South Wales, for example, the generalist has responsibility for teaching all the arts in almost 2,000 government primary schools across the State. This translates into almost half a million students from K - 6 receiving music instruction from the non-specialist (Management Information Services, 1989). In Arizona, 23% of primary teachers are responsible for music instruction, while another 18% teach music in cooperation with a music specialist (Arizona Commission of the Arts/Arizona Department of Education, 1988). In England, where over 70% of primary schools have a music specialist (DES, 1978), there are still 40% of the generalist teachers who opt to teach music (Department of Education and Science, 1985), and, according to Mills (1989), there exists a general drive towards the teaching of primary music by class teachers with the support of music consultants. In the past decade there have been no major initiatives in any of these locations that would significantly alter the percentage of non-specialists who are teaching music in primary schools.

The primary teacher is recognised as having the potential to affect their students' opinions about music and Asmus (1986), Price and

Swanson (1990), Topp (1987), Bowles (1991) and Kritzmire (1991) suggest that the primary school years are significant in the development of life long attitudes about music. Kritzmire's (1991) study goes further to indicate that primary school teachers' own musical experiences frequently shape their attitude toward and confidence in teaching music.

Research and literature from Australia, the United States and Great Britain supports the notion that generalist primary teachers (preservice and inservice) lack the confidence to teach music in their classrooms (Calouste Gulbenkian Foundation, 1982; Gifford, 1991). Mills (1989) found that education students often lacked confidence in their ability to deliver music instruction. Her suggestions that the nonmusic

students should be given more encouragement about their own abilities in music education courses is also supported by Kritzmire (1991). Mills also discovered the students in her study were less confident in music than in other subjects and that this lack of confidence in the ability to teach music frequently came from an overestimation of the musical skills needed by the generalist teacher. She concluded that teacher trainers, teachers and the students themselves should be much more optimistic about the potential of all teachers to teach music, implying that these three groups are not convinced from the outset that the generalist is able to teach classroom music.

In her study of primary teacher attitudes to teaching classroom music, Paterson (1992) found a significant relationship between their present confidence and confidence in teaching music at the end of preservice training. This would suggest that teachers do not develop their confidence to teach music once they are inservice. Added to this, the research of Perrott (1985) distinguished between teachers' actual lack of musical skills and their perceived lack of skills when she discovered teachers with high skill qualifications (for example, an AMusA) were still reluctant to teach music in the classroom. The author acknowledges being able to play an instrument does not instantly supply a teacher with the skills required to implement a classroom music program. Many teachers believe, however, that lack of musical skills such as proficiency on a musical instrument directly restricts their ability to teach music in the classrooms.

Studies Related to Instruction of Preservice Primary Teachers

While there are a number of studies which have surveyed teacher attitudes to teaching music in the primary classroom, studies which focus on ways in which tertiary music curriculum might encourage the development of a positive attitude and confidence to teach music are very few. The studies which do exist have generally had as their focus the music methods class rather than the often prerequisite music fundamentals class (Mills, 1989; Lewis, 1991).

In her study, Lewis (1991) noted that although other studies had assessed the attitudes of preservice elementary teachers, they did not seek to determine if there were changes in attitudes. She examined the effect of instruction in music methods and materials on primary education majors' attitude toward music and music education in the elementary school. Through the pretest/posttest procedure, Lewis assessed whether there was a difference in students' level of comfort in directing various musical activities and the amount of importance they placed on the study of music. She concluded that the taking of a music methods course had a positive impact on undergraduates' views concerning music education. On the other hand, when Mills (1989) asked the students in a music methods course to rank the subjects they would teach as generalist teachers according to how confident they felt, she found that the subjects came out in precisely the same order for both the pretest and the posttest showing the course had had little effect on their confidence in music. In her discussion Mills points out the implications for music education of this low ranking. She acknowledges that everyone has a curriculum area in which they are least confident but points out that those student teachers with low confidence in music can avoid teaching it to an extent which would be impossible in other curriculum areas such as mathematics or language, for instance.

Other studies which have focused on modes of delivery have generally not examined the content of the curriculum nor issues of motivation and developing confidence, but rather musical achievement. Tunks (1976), however, recognised that one of the important goals of music courses for preservice primary teachers was the promotion of positive attitudes

toward the value of music instruction in the education of young children. He identified two factors he considered important in the formation of these attitudes: (1) successful personal experience with music, and (2) viewing children engaged in successful musical experiences, and noted related research in support of the rationale that the elementary school teacher's attitudes toward the value of primary music are vital in shaping the attitudes of children. This study did not utilise a pre-posttest format so that a change in attitude might be measured. It simply compared the experimental and control groups, but achievement, not attitudes, was the focus of the measures and it was not shown to be significantly different. Slagle (1971) also explored the effectiveness of different methods of instruction in fundamentals music classes for elementary teachers through the measurement of achievement at the end of the courses. His study made no mention of attitudes to music nor the teaching of music. The underlying assumption by these researchers seems to be that achievement of musical literacy and skills will naturally lead these preservice teachers into implementing successful classroom music programs.

The Research Procedure

This study was designed to investigate whether a music fundamentals syllabus that directly addressed the issues of the development of self-confidence and a positive attitude to teaching music could affect these preservice teachers' attitudes to teaching music in their classrooms. A by-product of the study was the comparison of these students in an American and an Australian university.

The initial data collection took place with three classes and three lecturers at the University of Arizona in the spring semester of 1992 with a quasi experimental model. The "treatment" took the form of interactive teaching methodology as opposed to the traditional lecture mode of delivery. Although the course content was the same for all three classes, the mode of delivery was different for the "experimental" classes and included strategies for motivation and the development of a positive self-concept based largely on the work of Ames and Ames (1991) and Ames and Archer (1988). These teaching strategies were specifically aimed at the development of a positive music self-concept and included the setting of mastery goals, the use of praise, enhancement of motivation through efforts such as the reduction of social comparison, and a stress on learning as process oriented rather than product driven. The students were involved in performing, fundamental composing, aural and musicological activities which stressed musical process as a tool of learning and reduced the importance of musical product.

The measurement took the form of pre- and posttest surveys with the categories of demographic information (which included musical background), attitudes to music in the curriculum, perception of musical literacy, confidence in engaging students in a variety of musical activities, confidence rating of teaching primary school subjects, musical preferences, and listening habits and concert attendance. The basis of the surveys was the replication of some of the questions from the studies by Kritzmire (1991), Lewis (1991), and Mills, (1989) as well as the inclusion of researcher designed questions.

During semesters 1 and 2 in 1993 the same data collection took place with the three classes involved in the first year Expressive Arts subject in the Bachelor of Education (Primary) at the University of Newcastle. A similar curriculum model was used but the lecturer was not

the researcher.

Demographic and Background Data: A Comparison of Arizona and Newcastle

Table 1 shows the frequency distributions of gender and age of the two groups which were similar in terms of their being many more females in the courses than males and the majority of the students falling into

the 19 - 23 age group. The Arizona group contained about 10% more students who were older than 23 years.

TABLE 1: Frequency distributions of gender and age.

	ARIZONA	NEWCASTLE
N	641	811
%	100	100
Students	641	811
Male	69.38	1518.75
Female	589	636
Age		
19-23	467	1.88
24 - 27	71	0.94
28 +	117	1.11

Previous Music Experience, Instruction and Influences

The two groups showed remarkable similarities in the area of previous musical background, approximately 70% of both the groups agreeing they had had some previous music instruction. Table 2 shows the response to the four questions relating to musical background. As anticipated, there were a number of students who were undecided as to whether they could actually play a musical instrument but over 70% in both groups agreed they had had some experience playing an instrument.

TABLE 2: Frequency distributions for previous music instruction/experience:

1. I have had some music instruction.
2. I can play a musical instrument
3. I have had some experience playing an instrument.
4. I have sung in a choir.

	ARIZONA	NEWCASTLE
N	64	81
%	100	100
1. Agree	457	0.31
Undecided	57	0.81
Disagree	14	0.22
2. Agree	243	0.50
Undecided	94	0.12
Disagree	31	0.38
3. Agree	457	0.31
Undecided	1	0.13
Disagree	18	0.22
4. Agree	35	0.43
Undecided	0	0.11

Disagree2945.312733.33

In the case of the Newcastle students, the type of previous music instruction was able to be ascertained. It is mandated in the New South

Wales education system that all students complete 100 hours of music by the School Certificate in Year 10. This instruction generally takes place in Years 7 and 8 of junior high school. In addition to this mandatory course, three elective general music courses are available to students. The Additional music course is most frequently scheduled for Years 9 and 10. At a senior high school level, two Higher School Certificate music courses are on offer. Almost 30% of the students had studied the junior elective music course and 11% of the students had studied music at a senior level. These findings with the first semester Groups 1 and 2 did not account for the large difference between the number of students who stated they had had some previous music instruction and the break down of students who had studied elective music in high school. The survey given to the second semester Group 3 included the statement I have studied an instrument through the AMEB system.¹ In Group 3, 23.08% of the students had, indeed, studied music through this system, accounting for a least a part of the 69% who had agreed to having previous music instruction. Students may have also regarded the mandatory 100 hours of music in high school as "previous music instruction" but this instruction differs widely from school to school.

TABLE 3: Frequency distributions for previous music classes - Newcastle

1. I studied elective music in junior high school.
2. I studied 2 Unit One music for the HSC.
3. I studied 2/3 Unit Related music for the HSC.
4. I have studied an instrument through the AMEB system (Group 3 only).

	GROUP 1 n=26%	GROUP 2 n=29%	GROUP 3 n=26%	ALL GROUPS N=81%
1.	Agree623.08	1034.48	830.77	2429.63
	Undecided00	26.90	00	22.47
	Disagree20	76.92	1758.62	1869.23
2.	Agree27.69	310.35	00	56.17
	Disagree24	92.31	2689.66	261007
3.	Agree13.85	13.45	27.69	44.94
	Disagree25	96.15	1862.07	2492.31
4.	Agree623.08			
	Disagree20			76.92

Parental Influence

In response to the item relating to parental influence on attitudes towards music, 46.88% of the Arizona students felt that their parents had a significant influence on their attitude to music, while 28.13% were undecided and 25.00% disagreed. Conclusions with this group should be guarded, though, because the item did not qualify the significance as negative or positive. For the Newcastle survey, an attempt was made to qualify parental influence by including the word "positive" in the statement My parents/guardians had a positive influence on my attitude to music rather than "significant" as with the Arizona survey. In response to this item, 56.79% of the students felt that their parents had a positive influence on their attitude to music, while 18.52% were undecided and 24.69% disagreed.

TABLE 5 : Frequency distributions and percentages of parental influence

My parents/guardians had a significant influence on my attitude to music. (Arizona)

My parents/guardians had a positive influence on my attitude to music. (Newcastle)

ARIZONA

NEWCASTLE

N = 64 N = 81

Agree 30 46.88 46 56.79

Undecided 18 28.13 15 18.52

Disagree 16 25.00 20 24.69

Attitudes to Previous and Recent Musical Experiences

A large number of the students felt their primary school musical experiences had been positive (Table 6). Fewer of the Arizona students felt that their general experiences with formal music, which would also include high school and college, had been positive. Similarly fewer of the Newcastle students felt that their high school experiences with music had been positive and of their overall experiences with formal music, only 40% of the students agreed these had been positive while 25.93% were undecided.

TABLE 6 : Frequency distributions and percentages for elementary school experience -

1. My elementary/primary school musical experiences were positive.
2. My high school musical experiences were positive.
(Newcastle only)
3. Most of my experiences with formal music classes have been positive.

	ARIZONA	NEWCASTLE
N = 64%	N = 81%	
1. Agree	4977.785770.37	
Undecided	1014.291518.52	
Disagree	5 7.941619.75	
2. Agree	3846.91	
Undecided	1518.52	
Disagree	2834.57	
3. Agree	3859.383340.74	
Undecided	1625.002125.93	
Disagree	1015.632733.33	

Table 7 from the posttest shows that 90.63% of the Arizona students felt their experience with the music fundamentals class had been positive and 70.31% felt the instructor had positively affected their attitude to music. Although the majority of subjects in Group A felt their experiences in this class had been positive, 70.59% disagreed that the instructor had positively affected their attitude. The reasons for this distinction are unknown. Group B had 100% agreement on both items, while Group C had 95.65% and 86.96% respectively. Although a common achievement test given at the end of the semester³ and discussion amongst the instructors revealed each groups' achievement level to be similar, the students in Groups B and C perceived themselves as more musically literate than those in Group A.

TABLE 7 : Frequency distributions and percentages for this class experience -

1. My experiences in this music class have been positive.
2. My lecturer has positively affected my attitude to music.

	ARIZONA:		lecture method		interactive method	
	Group A	Group B	Group C	All Groups	Group A	Group B
	n=17%	n=24%	n=23%	N=64%	n=17%	n=24%
1. Agree	1270.59	241002295.65	5890.63			
Undecided	1 5.89	0 0 0	0 1 1.56			
Disagree	423.53	0 0 1 4.35	5 7.81			
2. Agree	1 5.89	241002086.96	4570.31			
Undecided	423.53	0 0 2 8.70	6 9.38			

Disagree 1270.59 0 0 1 4.351320.31

Table 8 from the posttest shows that 96.30% of the Newcastle students also felt their experiences in the music fundamentals class had been positive and 95.06% felt the instructor had positively affected their attitude to music. This table also includes the Arizona results from the interactive teaching method.

TABLE 8 : Frequency distributions and percentages for this class experience -

	ARIZONA	NEWCASTLE
	interactive method	
N = 47%	N = 81%	
1. Agree	4697.877896.30	
Undecided	0 033.70	
Disagree	12.1300	
2. Agree	4493.617795.06	
Undecided	24.2644.94	
Disagree	12.1300	

Perception of Musical Literacy

As was expected, there was a significant difference between pre- and posttest musical literacy. The six questions² relating to musical literacy were collapsed and a two tailed paired t-test administered, the results of which are displayed in Table 9. It should be noted that the scale is reversed giving lower posttest scores than the pretest scores. The overall t value for all the Arizona groups was 5.99 (p = .0019). Group A showed a significant posttest gain (t = 7.45, p = .0017), Group C showed a smaller gain (t = 5.72, p = .0023), and Group B showed the most significant gain (t = 8.87, p = .0003), where the students were more inclined to 'strongly agree' rather than simply 'agree' on the posttest items, displaying greater confidence in their musical literacy. The overall t value for all the Newcastle groups was 15.12 (p = .0001). Group 1 showed a significant posttest gain (t = 7.85, p = .0005), Group 3 showed a smaller gain (t = 4.82, p = .0048), and Group 2 showed the most significant gain (t = 15.54, p = .0001), where the students were again more inclined to 'strongly agree' rather than simply 'agree' on the posttest items.

TABLE 9 : Perception of musical literacy - pre- and posttest means, standard deviations, and t values (Arizona and Newcastle).

There was a significant gain across all the Arizona groups on the item,

I can play a musical instrument showing that the students that had not previously played an instrument now perceived they could despite the fundamental nature of and the time constraints related to the recorder and guitar tuition they received. The mean difference in Group B was slightly larger than that of the other two groups (Table 10).

TABLE 10: I can play a musical instrument - Arizona pre- and posttest means, standard deviations, and t values.

The Newcastle groups also showed significant gains on the item, I can play a musical instrument. It is interesting that Group 3, while showing a small gain, did not show the significant gain of the other groups (Table 11).

TABLE 11: I can play a musical instrument - Newcastle pre- and posttest means, standard deviations, and t values.

Future Music Study

Although the figures in Table 12 show that the subjects generally agreed that they wished to know more about music, the strength of the agreement dropped slightly from pretest to posttest. This is consistent with the fact that the students indicated that they learned something from the course, and perhaps there was a ceiling on what they wanted to know about music.

TABLE 12: I would like to know more about music - Arizona pre- and posttest means, standard deviations, and t values.

The Newcastle students agreed that they wished to know more about music and this strength of the agreement also dropped slightly from pretest to posttest (Table 13). This is of some concern because these students will have another three semesters of music before the end of their course.

TABLE 13: I would like to know more about music - Newcastle pre- and posttest means, standard deviations, and t values.

Attitudes to and Beliefs and Values About the Importance of Music in the Curriculum

Although there is a slight gain in the overall group mean and the means for Groups A and B, there was little change in the Arizona students' attitude to the importance of music in the curriculum when the seven items in this category were collapsed (Table 14).

TABLE 14: Place of music in the curriculum- pre- and posttest means, standard deviations, and t values (Arizona).

It should be noted, however, that there was a 'ceiling effect' evident in the pretest. In the raw data the students displayed an overall positive attitude to the place of music in the curriculum at the beginning of the course. For the Newcastle groups on the same item, there was a significant gain in the overall group mean and the means for Groups 2 and 3, there was little change in the Group 1 subjects' attitude to the place of music in the curriculum when the seven items

in this category were collapsed (Table 15).

TABLE 15: Place of music in the curriculum- pre- and posttest means, standard deviations, and t values (Newcastle).

Again, the 'ceiling effect' was evident in the pretest with students displaying a positive attitude to the place of music in the curriculum at the beginning of the course.

Relative Confidence in Teaching Music and Various Other Primary School Subjects

In Table 16 teaching subjects are ranked 1 - 9 according to the subjects' confidence about teaching them in the primary school, '1' indicating the subject that the student felt most confident about. Thus, in the pretest and over all the sections, art was ranked at an average of 5.03, that is, it was rated most frequently between '5' and '6' but more likely '5'. Music changed significantly in both the Arizona and Newcastle groups, indicating that the students felt more confident about teaching music after this music fundamentals course. In the Arizona group, drama, in contrast, was ranked lower in the posttest and for the Newcastle group, social science ranked lower in the posttest. Mills (1989) noted in her study of a music methods class in England, that when she ranked the eight (in her case) subjects according to the number of students who claimed the least confidence in them the subjects came out in precisely the same order from the pre- and posttest. Although the same is not true for the data in this study, in the Arizona groups the 'core' subject means remained relatively stable in comparison to the arts.

TABLE 17: Relative confidence in teaching music and various other primary school subjects (Arizona).

In Group 1, music moved from a place of '8' to '3' while in Group 2, it moved six places from '7' to '1', and in Group 3 it moved from '7' to '3'. It was in this area of ranking that the Newcastle group was quite different to that of Arizona (Table 18).

TABLE 18: Relative confidence in teaching music and various other primary school subjects (Newcastle).

When the whole group rankings were calculated, music ranked number one on the posttest. PE and drama were ranked higher in the Newcastle groups while science was ranked considerably lower than the Arizona group. Great importance cannot be attached to the rankings other than music as there are too many variables which may have influenced choices. The researcher, however, became curious as to how the students would rank the same subjects not as potential teachers but as participants. Group 3 from Newcastle was asked to rank the same subjects according to how much they enjoyed being a participant and in both the pretest and the posttest, drama, music and art consistently ranked as the top three respectively (Table 19).

TABLE 19: Pre- and posttest Group 3 rankings' of subjects according confidence in teaching and enjoyment as a participant.

Conclusion

From the comparison of the Arizona and Newcastle data it would seem that there are a great many more similarities than differences between

the two groups of students. Despite differences in educational and cultural background, both groups responded positively to the content of the interactive curriculum with its philosophical base in the New South Wales senior high school music syllabuses.

In general, the findings in this study appear to support the use of this curriculum with a focus on motivation and development of confidence to increase preservice teachers' confidence to teach music. Whether this confidence is maintained throughout the teacher education course will require continued monitoring of these students. The subjects from the Newcastle study will be surveyed at the beginning of 1995 in their third year of the course and again in 1996 in the one semester music methods course. Continued tracking into their first years of teaching will hopefully reveal how many of these teachers actually implement classroom music programs and whether there is a strong relationship between the attitudes expressed during the students' preservice program and their classroom practices.

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1 This refers to the Australian Music Examination Board system which is
an Australia wide organisation that determines the proficiency of a
variety of instrumentalists through a graded syllabus and highly
structured examination system. In conjunction with practical studies,
there are co-requisites in either what are termed theory or
musicianship. The theory/musicianship courses largely involve the
learning of a set of rules and their application to musical
constructions as well as some musical history and details of set works.

2 These six questions were Music reading is a complete mystery to me.;
I can work out the names of the any notes in the treble clef.; I can
work out the names of the any notes in the bass clef.; I can work out
the timing of simple rhythms from their notation.; I can play a musical
instrument.; I have had some experience playing an instrument.