The effect of participation in a Music Mentorship Program on the self esteem and attitudes of at-risk students

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Abstract

The purpose of the paper was to examine the effect of participation in a music mentorship program on the self-esteem and attitudes of at-risk students. Participants (N = 24) were adolescent girls enrolled in a special program for secondary students who are at risk for academic failure and who are experiencing conflict in school and at home. Participants were assigned to a music mentorship group, music participation only group (no mentorship component), or control group (no participation in music). Interventions were at-risk students' participation in either a 16-week music mentorship program, or a 16-week music only program. Mentees for the mentorship program were secondary students enrolled a self-contained public school for students with developmental disabilities. Experimental group participants were involved in a special chorus, step and movement group, and instrumental ensemble. Results from dependent measures indicated that participants' self-esteem scores in the music and music mentorship groups improved similarly from pre- to posttest, and improved more so than the control group, though not significantly. Participants' journals revealed positive and affirming statements about what the mentors had learned about people with disabilities, helping others, and teaching music. These data indicate that music participation in any form may assist in improving students' self-esteem, although specific interventions may need to be longer in duration, targeted toward a specific self-esteem domain, and/or more intense in order to show significant improvement in standardized measures of self-esteem. Additional pre-post data revealed that at the conclusion of the music mentorship intervention, at-risk students were more interested in teaching as a possible career, and were more comfortable with persons who have disabilities than they were before the intervention.

Keywords: disability, school retention, peer mentor program, music education.

Introduction

A growing number of students today are at risk for dropping out of school, under employment, teen parenthood, incarceration, and ultimately becoming nonproductive members of society (Vaughn, Bos & Schumm, 2006). Risk factors are generally considered to be low achievement in school, retention in grade, behaviour problems, poor school attendance, low socioeconomic status, and some authorities would add poor literacy skills (Sagor & Cox, 2004). These risk factors; however, may be mitigated by influences that protect youth from undesirable behavioural outcomes (Meschke

& Patterson, 2003). Student achievement indices of at-risk students point to the need for innovative instructional approaches that will engage youth with histories of repeated failure (Horton, 2005).

Various authors have offered ways in which music education can address the special needs of at-risk students (Duerksen & Darrow, 1991; Schuler, 1992; Zehr, 2003). One of the greatest challenges at-risk students present is their poor attendance at school (Schuler, 1991, 1992). There is little to be done to assist at-risk students if they are not physically present. Participation in music can serve as an enticement to attend school (Duerksen & Darrow, 1991; Zehr, 2003). Music activities that are hands-on, active and focus on student's creativity are often novel enough that they are lured to learn and motivated to attend school (Florida State Department of Education, 1990).

Authors have frequently suggested that music can also influence students' sense of belonging (Modugno, 1991; Scripp & Meyaard, 1991), and increase their performance in other academic areas (Black, 1997; Shreeve, 1996). MENC: National Association for Music Education has compiled convincing data to support the inclusion of music into the academic lives of children, especially those who may be at risk for academic failure (Taylor, Barry & Walls, 1997). Although a cause-and-effect relationship between participation in music education and improved academic performance in other subjects has yet to be empirically demonstrated, there are indeed impressive relationships between participation in music classes and academic achievement. For example, students taking music courses scored an average of 20-40 points higher on both verbal and math portions of the SATs than students who took no arts courses (MENC, 2004).

A number of researchers have found that music study can also lead to: increased self-esteem and a desire to learn (Costa-Giomi, 2004; Hietolahti & Kalliopuska, 1990; Jenlink, 1993; Kennedy, 1998; Kivlan, 1986), and yet others have found no influence of music on these variables

(Legette, 1993; Linch, 1994; Zimmerman, 2001), indicating that music instruction may need to be purposefully structured to affect personal attributes such as self-esteem – an attribute that is susceptible to varied and numerous influences in a student's life. Approaches that have been successful in improving students' attitudes and motivation to learn are the various configurations of the cooperative learning paradigm (Antil, Jenkins, Wayne & Vadasay, 1998).

The research literature on mentorship and peer tutoring is extensive and has revealed positive outcomes when these instructional strategies have been employed in the general classroom (Cohen, Kulik & Kulik, 1982; Fuchs, Fuchs, Mathes & Simmons, 1997; Mathes, Grek, Howard, Babyak & Allen, 1999). Tutoring models have been used to promote learning in subject matter such as mathematics (Britz, Dixon & McLaughlin, 1989), language arts (Wheldall & Colmar, 1990), science (Rosenthal, 1994), social studies (Maheady, Mallette & Harper, 1988), and art (Thurston, 1994). There are also numerous references regarding the benefits of cooperative learning, a strategy similar to peer-mediated learning (Edwards & Stout, 1989; Slavin, 1984, 1989; Slavin, Madden & Stevens, 1989).

Several authors have discussed the benefits of cooperative learning and peer tutoring in music learning (Kaplan & Stauffer, 1994; Sheldon, 1997, 2001). However, only three data-based studies specific to mentorship, cooperative learning, peer or cross-age tutoring could be found in the music literature (Alexander & Dorow, 1983; Darrow, Bonner & Gibb, 2005; Madsen, Smith & Feeman, 1988). Alexander and Dorow (1983) found that peer tutorial sessions were helpful to beginning band students, and that the use of approval may have played an important role in the tutorial relationship. Darrow, Bonner and Gibbs (2005) found that children are capable of teaching one another musical concepts, and that children are capable of learning themselves as they teach.

Madsen, Smith and Feeman (1988) provided much of the impetus for the present research. These researchers found cross-age tutoring to be effective in promoting positive interactions between disruptive older special education students and kindergarten students who were also identified as being low in social and academic skills. After viewing videotapes of tutorial sessions, naïve observers perceived tutors to be somewhat gifted, positive, socially appropriate, and above grade level. These findings suggest that placing troubled students in a "helping" role can create the opportunity for them to be reinforced for doing good work, to be viewed more positively by others, and to feel good about themselves. Other researchers have also found low achieving students to be effective cross-age tutors, and similar conclusions regarding the benefits to the tutor as well as tutee (Giesecke, Cartledge & Gardner, 1993). Research findings also indicate that using low-achieving and at-risk students as tutors improves their attitude toward school (Cardenas, Harris, del Refugio & Supik, 1991) and their social skills (Mathur & Rutherford, 1991), as well as reduces their drop out rate, truancy, and tardiness (Cardenas, et al., 1991; Lazerson, et al., 1988). The present paper builds on the aforementioned findings by examining the potential of a music mentorship between at-risk students and students with developmental disabilities to enhance and strengthen instructional strategies in music education. A meta-analysis of 64 studies on school-based interventions to enhance the self-concept of students revealed that middle school students benefited most from such interventions (Elbaum & Vaughn, 2001). Therefore, the purpose of the present paper was to examine the effect of such a program on the self-esteem and attitudes of at-risk adolescents.

Method

Participants

Twenty-four adolescent girls enrolled in a district-wide special program for at-risk students served as participants for the present study. Participants were at risk of academic failure and were experiencing conflict in school and at home. They were assigned to one of three groups: a music mentorship group, music participation only group (no mentorship component), and control group (no participation in music). Mentees for the present study were secondary students, also adolescent girls, enrolled a self-contained public school for students with developmental disabilities.

Intervention

Participants in the music mentorship group and in the music only group were involved in similar musical experiences: a special chorus, step and movement activities, instrumental ensemble work, and compositional activities. However, participants in the music mentorship group also served as mentors to students with developmental disabilities. Mentors were taught to use various teaching strategies such as chaining, specific feedback versus general feedback, task analysis, nonverbal communication skills, reinforcement, and adaptive strategies for teaching students with disabilities. Mentors and mentees met together once a week, and worked independently as necessary to prepare the mentors for instruction, and to provide mentees with opportunities to practice what they had learned from their mentors. The culminating event was a combined performance by the mentors and mentees. Performance activities were structured to build mutually satisfying relationships and esprit de corps, as well as to include the use of contemporary technology and the national standards for music as they apply to students

with disabilities and those at risk. Participants in the music mentorship group also maintained journals and wrote a short essay about their experiences at the completion of the program. Participants in the control group were enrolled in the academics only and were not involved in any organized music activities.

Assessments

Four evaluative measures were used for the present study: *Culture-Free Self-Esteem Inventory-3, Career Choice Assessment, Attitudes Toward Persons with Disabilities Assessment*, and the *Linguistic Inquiry and Word Count* (LIWC). The CFSEI-3 Adolescent Form (Battle, 2005) is a self-report inventory used to determine the level of self-esteem in students ages 13 to 18. It provides a Global Self-Esteem Quotient (GSEQ) and self-esteem scores in 5 areas: *Academic, General, Parental/Home, Social, and Personal*. A defensive measure is also provided to assess the extent to which an examinee's responses are guarded. Sample questions are: Can you do things as well as others? Are you as intelligent as most people? Do you usually quit when your schoolwork is too hard? Are you happy most of the time? Is it difficult for you to express your views and feelings? Would you change many things about yourself if you could? Is it hard for you to meet new people? The CFSEI-3 was administered to participants in the two interventions groups and control group.

The remaining two assessments (career choice and attitudes toward persons with disabilities) as well as journals and essays were completed by participants in music mentorship program. *The Career Choice Assessment* included one open-ended question, "When I finish school, the job I would like to have is   ?," and a rating scale ranging from 1 – no interest to 10 – very interested which participants used to assess their level of interest in the following teaching positions: a teacher's aid or paraprofessional, a substitute teacher, a classroom teacher, and a music teacher. The *Attitudes Toward Persons with*

Disabilities involved a rating scale ranging from 1 – very uncomfortable to 5 – very comfortable which participants used to assess their degree of comfort interacting with persons who have a disability in the following relationships: a close friend, a boyfriend or girlfriend, an only child, a child's closest friend, a brother or sister, a parent, a co-worker, and a neighbor.

The *Linguistic Inquiry and Word Count* (LIWC) (Pennebaker, Chung, Ireland, Gonzales & Booth, 2007) is a text analysis software program designed to calculate the degree to which people use different categories of words for the purpose of studying the various emotional, cognitive, and structural components present in individuals' verbal and written samples. The software calculates the percentage of words in a text that fall into various categories. It also compares these percentages to typical percentages found in formal and personal text writing.

Results

The purpose of the present paper was to examine the effect of participation in a music mentorship program on the self-esteem and attitudes of at-risk students. Participants were administered the *Culture-Free Self-Esteem Inventory-3* pre and post the music mentorship and music only interventions. Pre and posttest scores of participants in the music mentorship group were compared to those of participants in the music only group (no mentorship component) and to the control group (no participation in music).
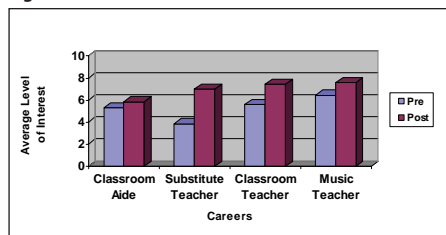
Figure 1: Esteem scores on the CFSEI-3 adolescent form.
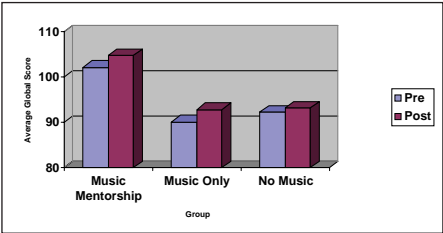
Participants' self-esteem scores in the music and music mentorship groups improved similarly from pre to posttest, and improved more so than the control group, though not significantly. Pre and post intervention scores can be seen in Figure 1.

One aspect of the mentorship program was the opportunity for the at-risk students to explore a potential area for future employment – working as a teacher's aide, or perhaps as a teacher, and thus encourage their continuation in school. Results of the *Career Choice Assessment* indicated that participants were more interested in a teaching career after intervention. During the free response portion of the Career Choice Assessment pretest, no participants reported an interest in teaching, compared to approximately 30% on the posttest. See Figure 2.

Another aspect of the mentorship program was to explore the possibility that such a program might affect participants' attitudes toward their peers with disabilities. Overall, participants were more comfortable with persons who have a disability after intervention. The greatest increase was in the "friend" category. Following the intervention, all participants in the music mentorship program reported that they would be "very comfortable" interacting with an individual who had a disability if the person were their child's friend, their sibling, or their neighbor. See Figure 3.

Figure 2: Career choice assessment.

Figure 3: Attitudes toward people with disabilities.
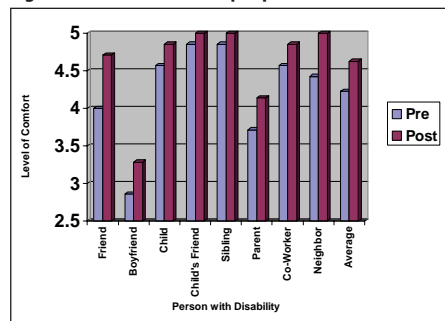
Table 1: Texts of participants' final essays.

Participants	Texts
1	I learned that teaching people stuff makes me feel good about myself. I had a great time with everything we did and I thought it would be more difficult than it was, but it was an awesome experience and I also made some friends too.
2	The things I've learned about myself is that I was patient with the girls even if they didn't get it right the first time. I would just tell them it is OK if you didn't get it right this time. We can try it again. And when I tell them that is puts a smile on their face and that makes me happy. And it shows that I am really improving on my teaching skills.
3	I've learned that helping people is a great choice. I really enjoyed helping teach to kids like girls. I have learned just because people have different problems everybody is still the same. Girls in Motion was a very good experience for me and I'm happy that I was able to go out and enjoy myself with helping others.
4	I have learned that helping goes a long way. I use to be scared of kids like that but I took a chance to work with them and I think that was the best thing I've ever done. To see them smile when you work with them makes me happy. Most people look at them and say they have a disorder they don't give them a chance to what they can do. I had fun working with them.
5	I learned that we're all different on the outside, but really similar on the inside. We all know what we want, and need, and how we feel. We all have our good days and our bad days. And we all love Girls in Motion.

Final essays by mentors revealed positive and affirming statements about what the mentors had learned about people with disabilities and had gained from helping others. See texts found in Table 1. These texts were examined using the LIWC for word content and percentages of words found in seven categories: self-references (I, me, my), social words, positive emotions, negative emotions, overall cognitive words, words of no importance – such as articles (a, an, the), and big words (> 6 letters). These data revealed that participants used significantly more positive emotion words and significantly fewer negative words than typically found in personal texts by adolescents of their age and gender. There were no other significant differences in their use of categorical words. See Table 2 and 3.

Discussion

The present paper was carried out in response to a request for proposals from the National Association for Music Merchants to examine "the effects of music education on self-esteem/self-identity/self-image" and to target the research question, "What kinds of music experiences are most conducive to the development of a positive self-esteem?"

To that end, the present paper was designed to examine the effect of participation in a music mentorship program on the self-esteem and attitudes of at-risk students. Results from the CFSEI-3 indicated that participants' self-esteem scores in the music only and music mentorship groups improved similarly from pre- to posttest, and improved more so than the control group, though not significantly. These data indicate that music participation in any form may assist in improving students' self-esteem, although specific interventions may need to be longer in duration, targeted toward a specific self-esteem domain, and/or more intense in order to show significant improvement in standardized measures of self-esteem.

Figure 1 reveals that participants in the music mentorship program had inflated pretest self-esteem scores. There may be two reasons for this inflation. The researchers were unable to randomly assign participants to each of the groups. Administrators at the school for at-risk students made the decision as to which girls would be in the experimental groups. For the music mentorship group, it is likely they selected students considered to be trustworthy enough to travel off campus each week; therefore, presenting a possible subject selection bias. In addition, administrators had already selected students for each of the groups when the pretest was given. Students in the music mentorship group had a mean defensive score that was higher than either of the other two groups; thus, indicating that their responses were more guarded—perhaps because they knew they had been given a group assignment with special

Table 2: Literacy analysis of participants' final essay, percentage of categorical words.

LIWC Dimension	Participants' texts					General personal texts
	1	2	3	4	5	
Self-references (I, me, my)	15.56	10.26	8.33	7.50	17.78	11.4
Social words	8.89	11.54	10.00	17.50	17.78	9.5
Positive emotions	4.44	3.85	6.67	5.00	4.44	2.7
Negative emotions	2.22	0.00	0.00	1.25	2.22	2.6
Overall cognitive words	8.89	6.41	5.00	7.50	15.56	7.8
Articles (a, an, the)	4.44	5.13	5.00	6.25	4.44	5.0
Big words (> 6 letters)	17.78	5.13	18.33	5.00	8.89	13.1

responsibilities and did not want to give any responses on the pretest that might jeopardize their selection for this group.

Other dependent measures in the study revealed that at the conclusion of the music mentorship intervention, at-risk students were more interested in teaching as a possible career, and were more comfortable with persons who have disabilities than they were before the intervention. In addition, participants' journals revealed positive and affirming statements about what the mentors had learned about people with disabilities, helping others, and teaching music.

Self-Esteem as a Dependent Variable

Coopersmith (1967), a pioneer in the field of self-esteem, defines the concept in terms of how we evaluate ourselves and our characteristics, the "personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself" (p. 5). Judgments about self-esteem are generally garnered by having individuals complete questionnaires in which they indicate how much they agree with various statements, such as, "Would you change many things about yourself if you could?" In "The Truth about Self-Esteem," Kohn (1994) suggests that what subjects say about themselves, and self-report measures are quite problematic. Some of the problems he finds are the decisions made as to what statements are included, how self-esteem questionnaires are scored, and the fact

that many self-esteem instruments have not been properly validated (although the CFSEI-3 used in the present study does have data in its manual reporting its validity), and any two measures are generally not comparable because self-esteem has been measured and conceptualized differently. Another problem he cites is that very few people who fill out self-esteem surveys end up with scores at or even near the bottom of the scale. The term low self-esteem then is a relative term, and people classified as having low self-esteem are typically not so much negative about themselves as simply neutral in their self-descriptions". Furthermore, interventions frequently have little impact on self-esteem since most individuals start above the median on any scale. Kohn argues though that critics who challenge attempts to mitigate self-esteem also do harm by placing their sole value on academics, by assuming that excellence in academics naturally precedes self-esteem, and by denying the value of affective education. Kohn states that:

Whether our objective is to help children become good (that is, creative, self-directed, lifelong) learners or good (that is, secure, responsible, caring) people—or both—we can do better than to concentrate our efforts on self-esteem. But let us be careful that in criticizing that approach we do not end up doing even more harm to students in the long run. (p. 282)

Table 3: t-tests for Literacy Analysis of Final Essays using the LIWC.

Category of Words	t	df	p
Self-references (I, me, my)	0.23	8	0.81
Social words	0.76	8	0.76
Positive emotions	4.51	8	0.00[a]
Negative emotions	2.94	8	0.01[a]
Overall cognitive words	0.47	8	0.64
Articles (a, an, the)	0.15	8	0.87
Big words (> 6 letters)	0.70	8	0.50

Notes: a) $p<0.05$

Table 4: Content analysis of mentees' journals.

Content categories	Percentage of sentences
Descriptions what took place	47%
"We learned the dance moves to Sugar Pie, Honey Bunch."	
Expressions of enjoyment	41%
"I'm having a good time dancing and singing with my new friends."	
Desires to see mentors again	11%
"I can't wait to see you today."	
Expressions of gratitude	2%
"Thank you for always making me smile."	

In a meta-analysis of 145 primary studies (200 interventions) O'Mara, Marsh, Craven and Debus (2006) found that most interventions do influence self-concept, a term they use more broadly than self-esteem, but acknowledge that affecting change in standardized measures of global self-esteem in difficult. In support of a multidimensional perspective, they found that interventions targeting a specific self-concept domain and subsequently measuring that domain were more effective.

Suggestions for future research might include having a longer intervention period, but more importantly, self-esteem measures that target self-esteem in music learning along with global, or domain specific self-esteem. O'Mara, et al. (2006) found that many researchers, particularly in education, attempt to enhance self-concept indirectly by developing the student's abilities in a specific subject matter. Furthermore, Haney and Durlak (1998) suggested that interventions that directly target self-concept by improving one's self-beliefs are more effective in enhancing self-concept than indirect interventions that target skill building.

While difficult to affect significant change, there are beneficial reasons for exploring interventions that target self-esteem. Enhanced self-concept has been frequently associated with various educational and social benefits (Donahue, Robins, Roberts & John, 1993; Marsh & Craven, 2006), and examining various interventions can reveal which strategies are the most effective. For example, in their meta-analysis, O'Mara, et al. (2006) found that for interventions emphasizing praise and/or specific feedback yielded the highest mean effect size, and suggested that their finding has important implications for intervention selection and delivery, given the low cost of interventions based on the appropriate use of praise and feedback and the relative ease of implementing such interventions.

Music Mentorship Programs

While participation in the music only and music mentorship programs did not have a significant effect on participants' self esteem scores, additional measures indicated there might be other benefits of such mentorship programs. Mentorship programs can serve several important purposes for students who are at-risk and those with developmental disabilities. For at-risk students, to build their self-confidence through working as mentors, and to enlighten their sense of self worth through helping others. Perhaps the most beneficial aspect of the mentorship program was the opportunity for the at-risk students to explore a potential area for future employment—working as a teacher's aide, or perhaps as a teacher; and thus, encourage their continuation in school. Mentors participation in the mentorship program was contingent upon acceptable social and academic behaviours at school. Administrators reported that this participation contingency proved to be a motivating incentive for the students to conform to school rules, and that after one incident in which mentors engaged in a physical altercation at school, their first question was whether they would be able to go to Girls in Motion, the name given for the music mentorship program. Their altercation did result in their missing one week of Girls in Motion. There were no other such incidents for the duration of the mentorship program.

Students with developmental disabilities often have behavioural challenges as well. One student was dismissed from the group after kicking chairs and pinching another student. Her dismissal provided the opportunity to address the consequences of inappropriate behaviour. Consequently, there were no other behavioural issues with the mentees. Another benefit of the mentorship program for students with developmental disabilities was the opportunity to interact with peers who have no cognitive or

physical disabilities—especially since the mentee participants attend a self-contained school. They were also able to perform age-appropriate music through the help of their mentors. Students with developmental disabilities generally require the use of adaptive strategies in order for them to be successful in a music, special, or general education setting (Adamek & Darrow, 2005). The opportunity to learn from and model their mentors, provided opportunities to improve their social and musical skills – all of which have the potential to influence their self confidence, an area of research that O'Connell (2005) has cited as particularly lacking for all students.

Post hoc data analysis – a content analysis of journal entries by mentors and mentees, revealed typical writing content and styles for students with developmental disabilities and adolescent-aged students. Writings by mentees were primarily descriptive and less detailed (see Table 4). Mentors used more variety in their writing and were more reflective about the mentorship experience (see Table 5). Patzer and Pettegrew (1996) cited the need for innovative strategies that foster literacy growth, self-expression, and communication skills in students with developmental disabilities. Teachers at the school for participants with disabilities reported that the journal writing provided enhanced opportunities for students to practice writing and to express their personal thoughts. Teachers also reported that the exchange of journals with their mentors motivated them to write well, and to use and learn to spell more advanced vocabulary. Future researchers may wish to investigate the effect of music journal writing on participants' literacy growth and development.

The music mentorship program also provided the opportunity to discuss appropriate behavioural responses to relevant social issues. The culminating event of the mentorship program was a performance by mentors and mentees at their respective schools. The first performance at the school for students with disabilities was well received. However, at-risk participants expressed concern about how their peers would react when the performance was given at their school. Their concern provided the opportunity for a group discussion with mentors about sharing with their peers what they had learned about persons with disabilities, how they might support their newfound friends in a potentially adverse situation, and about taking risks and doing what is right in spite of peer pressures.

Another incident prompted discussions about words sometimes used to refer to classmates with disabilities and their potential to be hurtful and discriminating. At the first meeting of the mentors, the researchers reviewed with them the appropriate terminology to be used when referring to persons with disabilities. After hearing some of their peers refer to persons with developmental disabilities using disrespectful terms, at-risk participants requested that the information provided to them about appropriate terminology be reviewed again.

Students acquire a sense of importance from being engaged in important activities, and from being active participants in their education (Kohn, 1994). Most music educators would agree that part of our job, explicit or implicit, is cultivating students who have tolerance and respect for others, who are loving and lovable, who take pride in their accomplishments, who are motivated to learn, who are willing to take risks, who accept responsibility for their actions, and who enjoy the challenge and stimulation of worthwhile musical goals. Objective and anecdotal data from the present would indicate that the study of music and the implementation of mentorship programs provide the opportunity to foster such outcomes.

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