

Students' self-beliefs and music instruction: A literature review

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Background. Only recently research in psychology and education revealed positive correlations between students' self-beliefs and their academic performance (e.g., Bandura, 1986; Pajares & Miller, 1997). Self-beliefs were found to be strongly related to students' perceptions concerning their abilities and expectations for future success or failure, on the one hand, and their sense of control over their actions, on the other. Research findings also demonstrated that these beliefs may affect students' academic achievement and their future choices with respect to elected school subjects (Zimmerman, 1995; Valentine, DuBois, & Cooper, 2004).

Moreover, recent research in music education emphasized the need for the study of certain parameters of the sociocultural environment that shape and affect students' beliefs and choices for music activities, and, thus, their musical development and achievement (Moore, Burland, & Davidson, 2003). Along these lines, several studies examined peer-group interactions and student-teacher interactions and the way they shape students' musical identities (e.g., Ramsey and Fitzgibbons, 2005; MacDonald, Hargreaves & Miell, 2002).

Aims. The present review of literature aims to examine and analyze studies on students' self-beliefs, in order to uncover the way these self-beliefs shape and change while participating in various musical activities, as they acquire more knowledge and experiences inside a specific school context.

Main contribution. Most research findings show that students with prior musical experiences may already have formed "strong" self-beliefs for various musical activities and their musical abilities, as well. It is worth noting, however, that most of these studies used quantitative methods, thus, limiting students' voices about their school realities.

Results of recent research studies indicated both gender and age differences in students' persistence concerning music and musical activities, the intensity of their engagement, as well as their performance (Leung, 2008; Freedman-Doan et al., 2000; Wigfield et al., 1997).

It would also be of great interest to examine how students with no prior or some musical knowledge decide to participate in a musical group in high schools and whether gender, age or a specific sociocultural background affect their preferences for participating in certain musical activities.

Implications. The present study proposes that the acknowledgement of the importance of students' self beliefs is not sufficient. Studies should further examine these self-beliefs and attitudes by using methodological approaches that offer students the opportunity to express their inquiries, their needs, and their preferences for music and musical activities, in particular, and their music realities, in general.

During the 20th century, important theories and trends in both psychology and education (for example, Social Cognitive Theory, Motivation, Self-Efficacy Theory, and Expectancy-Value Model) acknowledged the significance of self-beliefs, especially in the research on motivation. However, there was a turn of attention on the observable aspects of human behaviour due to the prevalence of behaviorism, and a new interest on beliefs and belief systems was, again, visible in the mid 1970s (Abelson, 1979).

Self- Belief and belief-systems: meaning and descriptions

A belief could be referred to a certain statement of an already known fact, a hypothesis about nature or the functions of the various social rules and institutes. It could also be a report concerning the objective goals, intentions and attitudes of other members of a specific sociocultural context. The ability for someone to define his or her objective intentions and goals already confirms the existence of various self-beliefs (Huynh & Szentcs, 2003). Nevertheless, the

concept of "belief" itself seems to be rather imprecise (Cooney, Shealy, & Arvold, 1998).

In research, there are two main viewpoints concerning self-beliefs (Furinghetti & Pehkonen, 2002). The first one supports the notion that beliefs are a part of the personal cognitive processing, while the second underlines that personal beliefs include some affective elements, due to the way they are shaped in certain sociocultural contexts (McLeod, 1989, 1992).

Green (1971) stated that beliefs are organized in belief systems by the individual, and that "*they come always in sets or groups, never in complete independence of one another*". Belief-systems act as filters in the brain causing people to view world in certain ways, influencing their actions, as well as their behaviour.

Types of Academic Self-beliefs

Academic self-beliefs are defined as '*people's beliefs about attributes and abilities as learners*' (Valentine, DuBois, & Cooper, 2004). The most widespread types of self-beliefs that have been the centre of attention for both psychology, education, and recently for music education are: self-efficacy, self-concept, self-esteem, expectancy-competence beliefs, and attributions (Eccles et al, 1983; Hewitt, 2004; Valentine, DuBois, and Cooper, 2004).

Many theoretical approaches showed interest and tried to examine these types of self-belief (for example, Self-Efficacy Theory, Intrinsic Motivation, Goal Theory, Expectancy-Value Theory and Attribution Theory), and results of most of these studies revealed rather positive correlations between students' self-beliefs and their academic achievement.

Self-beliefs are thought to affect behaviour and attitudes, autonomy, strategies, individual differences, motivation, identity, attributions, anxiety, and willingness to participate in certain academic and non-academic activities (Dörnyei, 2005; Williams et al, 2004; Yang, 1999; Yashima et al, 2004). For Pajares and Schunk (2001), students' academic behaviours are a function

of the beliefs they hold about themselves and about their academic potentialities.

Nevertheless, the level of affect between students' self-beliefs and academic achievement has not yet been clearly clarified (Byrne, 1996a).

Self-efficacy beliefs

Introduced by Bandura (1994), the concept of self-efficacy has been researched extensively in the fields of psychology and education. Perceived self-efficacy is defined as '*people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events and affect their lives*' (Bandura, 1986, 1994, 1997). According to Bandura (1997), self-efficacy beliefs are more associated with a person's expectancy beliefs and they represent a perception of self-competence to perform the behaviour required to influence outcomes.

Self-efficacy beliefs are determined by an interdependence of performance behaviours, personal factors (cognitive and biological events), and environmental factors. Therefore, when one factor changes there are subsequent changes to the others. Self-efficacy beliefs develop according to individuals' previous experiences, vicarious experiences, verbal persuasion, and affective state (Bandura, 1986).

Self-efficacy beliefs affect students' choices, as they select tasks and activities that they feel confident in, and determine the effort and persistence that they will expend on a certain activity (Pajares & Schunk, 2002). The most effective way of creating a strong sense of efficacy is through mastery experiences and according to Bandura (1994), successful experiences would create a strong sense of belief in a person's efficacy. Failures, on the other hand, undermine it, especially if these occur before a sense of efficacy is firmly established.

Self-concept

According to Purkey (1988), self-concept is the cognitive or thinking aspect of self, and refers to the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person

assumes to be true about his or her personal existence. Self-concept refers to a generalized self-assessment incorporating a variety of self-reactions and beliefs such as feelings of self-worth and general beliefs of competence. Various experimental studies dealt with the examination of the relationship between self-concept and achievement, and for many years there was an immense debate about the causal direction between them. Some researchers supported that growth in self-concept produces growth in achievement, while others proposed just the opposite (Hansford & Hattie, 1982; Marsh, 1990). Self-concept is not innate but is developed or constructed by the individual through interaction with the sociocultural environment (Shavelson, Hubner & Stanton, 1976). This dynamic aspect of self-concept is important because it indicates that it can be modified or changed (Pajares & Schunk, 2002).

Self-esteem

James (1896/1958) was one of the first writers who used the term self-esteem, in order to describe a feeling that "*in this world depends entirely on what we back ourselves to be and do*" (p. 54). According to Shindler (2006), self-esteem could best be described as a set of unconscious self-beliefs formed over a lifetime, reflecting our perceptions of our abilities, our lovability, and how we attribute causality for the events in our lives. Self-esteem is a more global construct and it refers to how people feel about themselves and how much they like themselves, especially socially and academically, and it is influenced by various social agents, such as parents, teachers, co-workers, friends, fellow classmates.

The past four decades of research has shown a clear relationship between levels of self-esteem and academic achievement (Bankston & Zhou, 2002; Schmidt & Padilla, 2003). Results indicated that successful academic performance seemed to enhance individuals' self-esteem (Robinson, Kehle, & Jenson, 1986; Werner, 1993).

Attributions

With the term 'attributions' we refer to a person's beliefs about the causes of his or her

success or failure. Attributions are significantly driven by a person's emotional and motivational drives. Attribution theory tried to explain the difference in motivation between high and low achievers, by estimating and measuring students' attributions concerning various academic subjects (Weiner, 1974, 1986).

Students tend to attribute their success or failure to their ability, effort, the context of the situation or the task difficulty, as well as to luck. These causal attributions are considered to be either internal and external or stable and unstable. Thus, causal attributions of ability and effort are considered to be internal-stable and internal-unstable respectively, while task difficulty is considered external-stable and luck, external-unstable.

Attribution theory was quite dominant in the motivation field for many years, but its influence has waned over time. However, Carol Dweck who worked in the attribution tradition, revealed her interest concerning individuals' beliefs about the nature of ability and the implications of these beliefs for their motivation and effort. Along with her colleagues (e.g., Dweck, 2002; Dweck & Leggett, 1988) she supported the notion that children can hold one of two views concerning intelligence or ability. Some children may hold an entity view of intelligence and consider that intelligence is a stable trait, while other children hold an incremental view of intelligence, and believe that intelligence is changeable, and could be increased through effort (Dweck, 1999). Dweck's perspective is quite different from the traditional attribution theory view, where ability is considered to be a stable characteristic.

Competence beliefs and task values

With the term competence beliefs we refer to children's own evaluation (informed by feedback from parents, friends and teachers) of how good they are at a particular activity. Values are associated with the levels of interest, importance and utility that people attach to particular activities.

Modern expectancy value theories, such as Eccles et al. expectancy - value model (1983), mainly link achievement,

performance, persistence, and choice to individuals' expectancy-related and task value beliefs. Generalized competence-expectancy beliefs were found to influence people's behaviour, in both general and specific situations, and could be influenced by specific situations (Eccles et al., 1983; Wigfield & Eccles, 2000). Both cross-sectional and longitudinal research studies suggested that children's and students' perceptions concerning their academic competence are positively associated with their grades, and that there is a reciprocal association between competence beliefs and academic performance (Eccles et al., 1984; Valentine et al. 2004).

In addition to the study of competence-related beliefs there was a great interest for the assessment of children's valuing of particular tasks or activities (attainment value, intrinsic value, extrinsic value, and cost of participation). Competence beliefs and subjective values are distinct even in early school years, they vary across domains (Eccles, Wigfield, Harold, & Blumenfeld, 1993; Wigfield, 1994), and they are vital forces in children's future choices to pursue or avoid competence situations and to persist in the face of challenges (Eccles & Wigfield, 2002; Elliot & Dweck, 2005).

Self-beliefs and music instruction

Music education showed a great interest for the study of all of the above types of self-belief and tried to find ways to create the proper theoretical frameworks in order to explain children's and adolescents attitudes concerning music, as well as to examine the various interactions within certain musical contexts, which could influence their performance. Inside the music classroom students may form and hold different types of beliefs concerning music and the various musical activities. These beliefs about their musical abilities, their efficacy, or the valuing of certain musical activities, depend on their prior musical experiences and the diverse influences from the wider sociocultural context.

The present review of literature focuses on the examination of self-beliefs, in order to

uncover the way these self-beliefs shape and change while students participate in various musical activities, as well as to the research methods that were used in order to access these types of self-belief.

Self-concept and musical achievement

The important influence of self-concept in determining individuals' musical achievement and classroom behaviour has been demonstrated by a number of studies (Austin, 1990; Covington, 1983). Raynor (1983) found that students, motivated for music-related activities, have more positive self-concepts and exhibit successful task performance. Klinedinst (1991) found that self-concept in music had a prominent role in students' retention in instrumental music classes.

Vispoel (1995) attempted to integrate self-concepts in various artistic domains, such as dance, drama, art and music, using Shavelson, Hubner and Stanton (1976) model, and found a significant correlation between music self-concept and social self-concept. Marsh and Roche (1996) examined music, dance and drama self-concepts of performing arts students and non-performing arts students, and found that self-concepts of performing arts students' were more highly correlated to their self-esteem than in non-performing arts students. Koliadi-Tiliakou (2007) found a positive correlation between music self-concept and general self-esteem of music school students, as well as gender differences with girls showing higher music self-concept.

Self-concept is a hierarchical and multidimensional construct, consisting of several content-dimensions (Shavelson, Hubner & Stanton, 1976), and could either facilitate or hinder the development of students' musical skills. Students' musical self-concept continues to develop and could change with each new musical experience they encounter, affecting their musical achievement, and performance (Reynolds, 1992).

Self-esteem and music education

Several studies dealt with the relationships between individuals' musical attitudes and

their self-esteem (Michel & Martin, 1970; Michel & Farrell, 1973). VanderArk, Nolin, & Newman (1980) showed that self-esteem was an important variable in attitude prediction of elementary school children's music instruction. They found a correlation between students who participated in music instruction with students who had high self-esteem. Music reading activities were found to produce the least productive in developing students' self-esteem. Asmus (1986) reported that self-esteem is an important theoretical variable in students' beliefs concerning success and failure in music. VanderArk (1989), proposed a model for the study of self-esteem and creativity in music, as he viewed that test and instruments that were used in order to access self-esteem appeared to lack empirical validity. VanderArk found that special types of music activities such as solo singing, contest participation, listening to music, and performing music appeared to produce positive attitudes and self-esteem.

Music was found to have a positive influence on students' self-esteem. Music teachers' primary goal should be to apply teaching practices that would promote self-esteem inside the music classroom in order to produce more successful, hard working, risk taking, and self-directed students, eager to participate in various musical activities.

Students' attributions and musical achievement

Students' attributions concerning their success or failure in the musical domain were studied extensively by the use of various research methodologies, some of which are difficult to classify (e.g. situational, critical incident). In general, music students have been found to attribute their own success or failure to internal and stable causes much more than external or unstable causes (Asmus, 1986; Ligette, 1998).

Asmus (1985, 1986b), by the use of open-ended response formats, discovered that students tend to attribute their success to ability and effort, whereas for failure they cited a greater number of external-unstable reasons. Additionally, Asmus found grade, gender and school differences. However, the selected methodology yields inferior results

compared to those obtained via rating scales, and it is unclear whether students replied to questions while thinking about themselves, others, or both (Austin & Vispoel, 1998).

In Ames and Archer (1988) study instrumental music students completed a questionnaire designed to ascertain their perceptions of classroom goals. They tended to attribute failure to the use of inappropriate strategies or insufficient efforts. Austin and Vispoel (1992), also, found that instrumental music students attribute failure to the use of inappropriate strategies or insufficient efforts rather than the lack of ability.

Legette conducted a series of research studies concerning students' attributions about success and failure in music, by using Asmus Music Attribution Orientation Scale (1986c). In his study (1993) with 261 third- and fourth-grade students showed that girls place more importance on effort compared to boys. He, also, found significant differences in cited causal attributions between grade levels. In a later study Legette (1998) included a broader spectrum of public school students, yet the results were consistent with the findings of previous research (Asmus, 1988; Legette, 1993), as students tended to place more importance on ability and effort as causal attributions for success or failure in music. Painsi and Parncutt (2004) study showed that young instrumentalists attributed their successes to their ability or effort, and believed that failure could be avoided by hard work. They also explained their success more to their teachers' influence than to their parents. Gender differences were also evident in this study.

Self-efficacy in music education

McPherson and Zimmerman (2002) as well as Maehr, Pintrich, and Linnenbrink (2002), were some of the researchers who recently decided to include self-efficacy beliefs in instrumental music education research. McPherson and McCormick studies (1999, 2000, 2003, and 2006) focused, among others, on students' cognitive strategy use, the effect of practice in a performance examination, and the level of anxiety and confidence concerning their abilities.

McPherson and McCormick (1999) found that task-value predicted levels of cognitive strategy use and time spent practicing technical work. McPherson and McCormick study (2006) replicated and expanded their previous study, while using a more refined self-efficacy scale. Results showed that self-efficacy was again the most important predictor of achievement for young musicians. Nielson (2004) found that instrumental and vocal music students who were cognitively and meta-cognitively involved in practice were more likely to hold higher self-efficacy beliefs. This research, also, revealed significant gender differences. Still, research should focus more on the influence of self-efficacy beliefs on students' musical behaviour within the classroom context, as well as on their participation in various musical activities.

Students' competence beliefs and task values in music

Eccles (1983) Expectancy-Value theory has a substantial research history and has been applied in various academic domains, as well as in the musical domain, in order to explain student achievement motivation. An overview of recent research studies indicates that students do not have the same competence beliefs and subjective task values for music and the various musical activities. Results revealed gender and grade differences with girls viewing music as one of the most important school subjects, and both sexes expressing negative attitudes towards music (Crowther & Durkin, 1982; Eccles et al., 1993a, Wigfield et al., 1997). It should be noted that the majority of these studies used qualitative methodologies in order to assess students' competence beliefs and task values. McPherson (2000) interviewed elementary school children (7-9 years old) and found that young instrumentalists have expectations and values, which could affect their subsequent musical development. Even though the majority of children thought that learning a musical instrument was useful while they were at school, they did not see how this could be important for their future life. Yoon (1997) found that elementary school children's competence beliefs and task values were strong predictors of all three behavioural

outcomes that were measured (choice, practice and perceived parental value). Results from O'Neill (1999a) study with high school students certify that valuing a musical activity predicts the amount of practice. Nevertheless, competence beliefs were not associated with students' practice.

However, future research should mainly focus on individuals' differences in the interpretation of the various subcomponents of subjective task values concerning musical activities, as well as on how this interpretation may affect students' musical involvement (O'Neill & McPherson, 2002). Katsochi's study (2001) with elementary school children, revealed, contrary to the initial predictions, that competence beliefs were highly associated with the level of children's musical involvement. Nevertheless, children did not perceive that playing a musical instrument was an important, useful or interesting musical activity, maybe due to their lack of experience, as it is not a compulsory part of the school curriculum in Greece.

Conclusions

The present review of literature concerning children's and students' beliefs about music, verifies the importance of these beliefs in their future musical behaviour, participation in various musical activities, achievement and performance. Apart from limitations due to the designs of these studies, which were pointed out, future research should focus on the use of methodological approaches that offer students the opportunity to express their inquiries, their needs, and their preferences for music and musical activities. It is evident that teacher and parent interventions should aim to motivate students' musical learning, by modifying attitudes and beliefs that may inhibit their skill development and knowledge acquisition. Teachers should create a context that is likely to foster the use of effective learning strategies and assist students' efforts and persistence concerning their musical involvement.

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