Attributions for success: exploring the potential impact on music learning in high school

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Abstract

Students' beliefs about why they may or may not be successful in various pursuits can influence the extent to which they are likely to invest effort in these pursuits and which in turn affects the level of achievement likely to be experienced. Attributional beliefs assign causes for success and failure to a range of factors, including ability, effort, task difficulty and luck (Weiner, 1986). This paper reports on high school students' beliefs about the reasons for their success or otherwise in school subjects and other activities, using data collected as part of a larger study using a researcher-designed *Survey of Musical Experiences and Self-Concept*. The participants (N=282) were a mixture of Year 9 and 10 students from three high schools in metropolitan Adelaide. The data collected reveals that the facet of 'enjoyment' was perceived as being an important element among the reasons given for achieving success. There are implications for teaching in general, as well as specific applications to high school music education practices.

Keywords: students' beliefs, self-perceptions, self-efficacy theory, attribution theory.

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Introduction: Attribution theory and self-efficacy

The aim of this paper is to highlight the importance of students' self-perceptions and beliefs about their abilities in affecting their educational outcomes and achievements. There are close links between attribution theory (Weiner, 1986) which assigns causes for success and failure, and self-efficacy theory (Bandura, 1986) which is concerned with beliefs and expectations about one's competency on specific tasks. In Weiner's (1986) model of attribution theory the causes for success and failure are identified as ability, effort, task difficulty and luck. As students mature, they tend to place more emphasis on ability attributions and less emphasis on effort attributions (Austin & Vispoel, 1998). This is particularly evident in early adolescence, which is around the transition time from primary to high school. Therefore, if effort attributions are encouraged, rather than ability attributions, students are more likely to persist in their learning.

Self-efficacy is concerned with the aspect of ability and refers to one's belief in one's ability to carry out a task successfully. According to Bandura (1997), "efficacy beliefs affect thought processes, the level and persistency of motivation, and affective states, all of which are important contributors to the types of performances that are realized" (p. 39). There is a strong connection between self-efficacy and actual performance (McCormick & McPherson, 2003), and self-efficacy beliefs play a causal role in students' achievement and are predictive of students' effort and

persistence (Zimmerman, 2000). Bandura (1997) asserts that "perceived self-efficacy contributes to performance accomplishments over and above the effects of skill development" (p.102), thus highlighting the importance of self-efficacy beliefs within the learning process. In reviewing research into self-efficacy, Zimmerman (2000) concludes that:

> *when studied as a mediating variable in training studies, self-efficacy has proven to be responsive to improvements in students' methods of learning (especially those involving greater self-regulation) and predictive of achievement outcomes. This empirical evidence of its role as a potent mediator of students' learning and motivation confirms the historic wisdom of educators that students' self-beliefs about academic capabilities do play an essential role in their motivation to achieve. (p. 89)*

A comparison of the likely outcomes based on efficacy beliefs as outlined by Bandura (1997) is shown in Table 1. This comparison highlights the potential impact of efficacy beliefs on outcomes, with compelling implications for education.

Dweck's (2000) entity and incremental theory of intelligence is relevant to consideration of self-beliefs. If an entity belief is held, then "people believe [that] their intelligence is a fixed trait" (Dweck, 2000, p. 2), and "that there is little that can be done to change them" (Hargreaves & Marshall, 2003, p. 265). For students who hold entity beliefs, they are likely to "show low persistence and performance deterioration in the face of failure" (O'Neill, 2002, p. 81), which is similar to the likely outcomes when individuals have low efficacy beliefs about their capabilities in particular domains (see Table 1). Entity beliefs tend to lead to the display of "helpless or defensive reactions to difficulty and to lowered self-esteem, intrinsic motivation, and learning in the face of difficulty" (Dweck & Molden, 2005, p. 137). If an incremental belief is held, then in contrast, intelligence is seen as not fixed but able to be increased through learning and one's efforts (Dweck, 2000). Incremental beliefs are likely to "promote mastery-oriented strategies in the face of challenge, which lead to enhanced self-esteem, intrinsic motivation and learning" (Dweck & Molden, 2005, p. 137). Thus, developing incremental beliefs resonates with the notion of attributing achievement to effort, which also impacts upon persistence and motivation to learn.

Method

A researcher-designed *Survey of Musical Experiences and Self-Concept* aimed to investigate a number of research questions relating to the relationships between self-perceptions, musical

Table 1: Comparison of likely outcomes based on efficacy beliefs (adapted from Bandura, 1997, p. 39).

Low efficacy beliefs – in particular domains of activity	High efficacy beliefs – in particular domains of activity
• shy away from (avoid) difficult tasks	• approach difficult tasks as challenges to be mastered
• hard to motivate oneself	• affirmative orientation fosters interest and engrossing involvement in activities
• low aspirations and weak commitment	• set challenging goals and maintain strong commitment to these
• slacken efforts or give up quickly in the face of obstacles	• invest a high level of effort
• slow to recover their sense of efficacy following failure or setbacks	• heighten effort in the face of failures or setbacks
• dwell on personal deficiencies	• task-focused and think strategically in the face of difficulties
• efforts undermined by formidableness of the task and the adverse consequences of failure	• attribute failure to insufficient effort
• lose faith in one's capabilities	• efficacious outlook enhances performance accomplishments, reduces stress, and lowers vulnerability
• attribute insufficient performance as deficient aptitude	
• easy victim to stress and depressionto depression	

involvement and academic achievement. The focus for discussion in this paper is the research question: what are some of the attributions for success identified by the participants in this study? The Survey was completed by Year 9 and Year 10 students (N=282), aged around 14 to 15 years old, from three schools in metropolitan Adelaide, South Australia, and was administered by teachers at the schools. Approval for the research was granted from the South Australian Department for Education and Children's Services and the University of Adelaide's Human Research Ethics Committee. An information sheet about the research, along with a parental consent form, was provided to students at the schools approximately one week before the Survey was administered.

The participants comprised a mixture of those taking Music as a school subject (hereafter referred to as 'Music' participants) and those not taking Music as a school subject (hereafter referred to as 'non-Music' participants). The number of participants, including the breakdown according to gender and Music participation, is shown in Table 2. The first section of the Survey sought a range of background information. The first question in the Survey asked: "What subject/s are you best at? Why do you think that this is the case?" The second question asked participants to name other pursuits (either at school or outside of school) they believed themselves to be "good at", and to provide a reason for being good at these pursuits.

Table 2: Number of participants and sub-groups (N=282).

	Total	Percentage
Total number of participants	282	100
Music students	124	44.0
Non-Music students	158	56.0
Male	145	51.4
Female	137	48.6
Music students	124	100
Male	66	53.2
Female	58	46.8
Non-Music students	158	100
Male	79	50.0
Female	79	50.0

Results

The reasons given by participants as to why they believed they were best at a subject or a pursuit will be the focus for discussion here, rather than what the subjects or pursuits themselves actually were. This is because the reasons given indicate some of the beliefs and attributions for success held by the participants, and these may have some impact on learning and achievement both in general, and in music.

Participants expressed their reasons for being best at nominated school subjects in various ways, and many participants described more than one reason in their responses. The question about "why do you think [you are best at]" was interpreted in many different ways. Some responses suggested particular tangible outcomes or evidence, such as good grades or special awards or certificates, as the reason for being best at nominated subjects. However, such responses are more applicable to the question: "how do you know that you are best at ...?". Responses were coded according to the main reason or reasons given, with the categories for coding the responses being arrived at based on the nature of the responses themselves and on the typical attributions as identified in Weiner's (1986) attribution theory. The coding categories that were developed use the following broad headings: enjoyment, ability, effort, family, task value, task difficulty, and tangible outcome, and if multiple reasons were evident in the response then the relevant combination of headings was used when coding the responses. The category of enjoyment was included due to the large number of responses that mentioned enjoyment within the reasons given. The frequencies of the various reasons are shown in Table 3, which also includes the breakdown for all participants, Music and non-Music participants, and male and female participants.

The most frequent category of reason given as to why participants were best at particular school subjects was Enjoyment, with 29.8% of responses indicating Enjoyment as the main

reason, and a total of 53.8% indicating Enjoyment in combination with other reasons. Although it could be argued that enjoyment itself is not a reason for success, it nevertheless highlights that the participants perceived enjoyment to be an important factor that is a part of doing well or achieving. There was little difference in the frequency of Enjoyment responses for Music and non-Music students, however Enjoyment as a reason featured far more prominently for females as compared to males. The next most frequent reason given was Ability with 21.2% of responses attributing their achievement to Ability, and a total of 37.8% to Ability in combination with other reasons. The frequency for the category of Effort as a single reason was only 4.6%, and in combination with other reasons Effort was included in 17.6% of responses. Females gave more frequent responses for Effort combined with other reasons (24.0%) as compared to males (11.8%). The remaining categories – Family, Task Value, Task Difficulty and Tangible Outcome - were much less frequent than Enjoyment, Ability and Effort. The relative frequencies of Enjoyment, Ability and Effort being included in responses is illustrated in Figure 1.

With regard to the reasons given for being good at various pursuits, the same process as that outlined above for school subjects was used in order to analyse the reasons given (see Table 4 and Figure 2). Analysis of the frequency of responses for the various categories of reasons given for being good at nominated pursuits reveals some distinct differences when compared to best school subjects. Enjoyment was still the most frequent (although less so) category of response with a total of 38.7%, as compared to 53.8% for best school subjects. The most striking difference was with the response category of Effort where the frequency for other pursuits was a total of 38.3%, as compared to a total of 17.6% for best

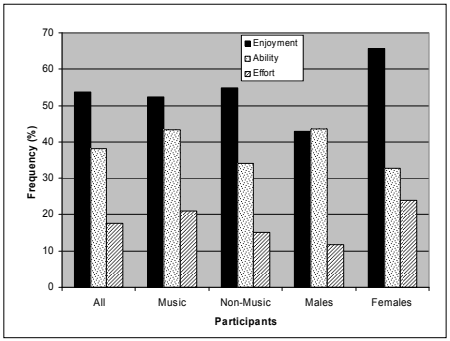

Figure 1: Main reasons for being best at particular school subjects.

Table 3: Reasons given for best school subject.

Reason	All responses: %	Music responses: %	Non-Music responses: %	Males' responses: %	Females' responses: %
Enjoyment	29.8	25.0	33.5	24.8	35.0
Enjoyment & ability	11.0	12.1	10.1	11.7	10.2
Enjoyment & effort	7.4	8.9	6.3	2.8	12.4
Enjoyment & effort & ability	2.8	5.6	0.6	2.1	3.6
Enjoyment & tangible outcome	2.8	0.8	4.4	1.4	4.4
Ability	21.2	22.5	20.2	27.0	15.4
Effort	4.6	3.2	5.7	4.1	5.1
Ability & effort	2.8	3.2	2.5	2.8	2.9
Tangible outcome	3.9	3.2	4.4	4.8	2.9
Task value	0.7	0.8	0.6	0.7	0.7
Task difficulty	1.8	0.8	2.5	2.1	1.5
Don't know	2.1	3.2	1.3	3.4	0.7
Miscellaneous	3.0	3.2	2.5	4.9	0.7
Did not answer	6.0	7.3	5.1	7.6	4.4

school subjects. Likewise the category of Ability occurred as a response less frequently for various pursuits (27.3% total) as compared to school subjects (37.8%). Both males and females were much more likely to attribute Effort in relation to various pursuits (38.6% and 38.0% respectively) as compared to school subjects (11.8% and 24.0% respectively). Given the desirability of attributing success to Effort, it would appear that this is more likely to occur with other pursuits rather than with school subjects (see Figure 3).

The following statements provided by some of the participants in the Survey give some insights about the perceptions of Enjoyment being included in the reason for their achievements either in school subjects or in other pursuits:

- "Because I enjoy them and I have a lot of time and patience for them" (No. 164)
- "I enjoy them so it gives me motivation to do them" (No.155)
- "Because I enjoy them, so learn the skills quickly and fun doing these things" (No. 125)
- "These are things I really enjoy so I put more effort into them" (No.91)
- "Because I love doing these things and they interest me" (No. 28)
- "Because I enjoy them and I try very hard to do my best" (No. 4)

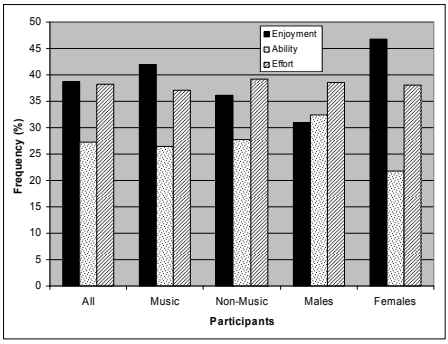

Figure 2: Frequency of reasons for being good at various pursuits.

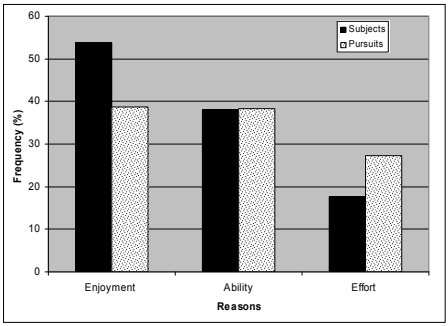

Figure 3: Frequency of main reasons for doing well in school subjects and various pursuits.

Table 4: Reasons given for being good at various pursuits.

Reasons	All responses: %	Music responses: %	Non-Music responses: %	Males' responses: %	Females' responses: %
Enjoyment	23.8	25	22.8	17.2	30.7
Enjoyment & ability	4.6	4.8	4.4	6.2	2.9
Enjoyment & effort	7.8	8.9	7	6.2	9.5
Enjoyment & effort & ability	1.4	2.4	0.6	0.7	2.2
Enjoyment & tangible outcome	1.1	0.8	1.3	0.7	1.5
Ability	17.4	17.7	17.0	20.0	14.5
Effort	24.5	23.4	25.3	24.8	24.1
Ability & effort	3.9	1.6	5.7	5.5	2.2
Task difficulty	1.1	0.8	1.3	1.4	0.7
Don't know	3.9	5.6	2.5	5.5	2.2
Tangible outcome	2.5	4.8	0.6	2.8	2.2
Did not answer	6.4	2.4	9.5	6.9	5.8
Miscellaneous	1.8	1.6	1.9	2.1	1.5

Discussion

The broad reason of 'enjoyment' was the most frequent given for being successful in either school subjects or in other pursuits. Enjoyment in relation to learning embraces a number of aspects, of which some sense of achievement in an area of interest (which implies that the area is liked, is pleasing) seems to be underlying it. Enjoyment, however, implies much more than fun. The term 'fun' implies pleasure which:

> *can occur with little or no conscious effort; [however] enjoyment cannot. Pleasure can be stimulated electrically and chemically in the brain; enjoyment cannot. Enjoyment results not from satisfying basic biological and social needs but from moving forward in psychological growth and complexity. … Any form of intentional action to which there is a corresponding form of know-how provides the basis for ordering consciousness and experiencing enjoyment. Enjoyment is not something that just happens; enjoyment is something that people make happen as a result of their efforts to meet the demands of something that they themselves deem a challenge. (Elliott, 1995, p. 115)*

While enjoyment may indeed be an outcome of, rather than a reason for, success or achievement, it nevertheless highlights that the aspect of enjoyment was perceived to go hand in hand with this. Enjoyment as a reason featured for both school subjects and other pursuits in the Survey, although it was mentioned more frequently in relation to school subjects. This seems to suggest that enjoyment is a factor in achieving, therefore it raises the question: if enjoyment is increased, is achievement likely to increase as well?

When looking at the reasons given for success in other pursuits it was apparent that, the attribution of effort was more prominent than for school subjects. With other pursuits, it is reasonable to expect that participants would have quite a degree of choice in whether or not to undertake the pursuit, and the combination of choice along with effort attribution could contribute to the sense of achievement with the pursuit. There is widespread support in the literature for the desirability of attributing effort rather than ability in achievement, and that is what was occurring here more in relation to other pursuits rather than school subjects. If the effort attribution could more readily be applied to school subjects, just as it is in other pursuits, there could well be an increase in achievement.

The identification of enjoyment as a key factor in achieving suggests that there needs to be more recognition of enjoyment as an important part of the learning process by high school teachers. Enjoyment is likely to be experienced when there are optimal challenges (Elliott, 1995), that is, the level of challenge matches the level of expertise thus enabling a sense of achievement. If students have more opportunities where they can experience a sense of achievement, and hence enjoyment, they are more likely to continue to apply effort. Another factor in enjoyment is that of interest, and it is here where teachers may need to incorporate strategies which are designed to create interest and thereby develop intrinsic motivation.

Encouraging students to develop an effort attribution rather than an ability attribution can be another means of influencing motivation to learn. Likewise, beliefs about one's ability can impact upon learning, and developing an incremental view of ability (which is that ability can be changed through effort) can help students to develop a tendency towards effort attribution (Dweck, 2000). The opinions of teachers and parents can be influential in students developing such views about their abilities. Such beliefs are less receptive to change as students move through the primary and into the high school years. Students' beliefs about their abilities develop as a result of the experiences which they have and the opinions of others, and sometimes these beliefs can generate a mindset which closes off their willingness to pursue an area, even though there may be nothing inherently lacking with regard to their ability. Students with an incremental view of ability are likely to seek challenges, apply effort, and to persevere in the face of difficulty (Dweck, 2000). It is also desirable

that students develop strategies for self-regulation, which can provide functional ways of supporting them as they apply effort and persist with tasks. Such strategies include goal setting, attention to the task, time management, the setting up of a suitable environment, self-evaluation and seeking assistance (Zimmerman & Katsantas, 2005). Developing an awareness of these aspects, that is, effort attribution, incremental view of ability, and strategies for self-regulation, is an important part of personal development and can be included within schooling.

The recognition of enjoyment as an important part of the learning process applies equally to music learning. This endorses the view put forward by Cox and Pitts (2003) that "enjoyment is a vital but somewhat elusive criterion in shaping effective and engaging experiences of music education, … [and that] enjoyment is critical to music education" (p. 227). Music teachers need to seek ways to build on inherent interest in music, and to create interest, particularly when they may be dealing with musical styles that may not be preferred by the students. Providing opportunities for competence through optimal challenges, as well as incorporating relatedness and autonomy (Deci & Ryan, 1985; Ryan & Deci, 2000), will serve to enhance potential enjoyment. Class music making abounds with such opportunities. For example, ensemble playing can incorporate varying degrees of difficulty yet still enable active involvement and social interaction with peers. Small-group composition tasks allow opportunities for self-expression and collaborative work with peers. Making use of the types of informal learning practices used by popular musicians has the potential to provide enjoyment, as students are motivated to learn using aural means through active processes in collaboration with peers. According to Hargreaves and Marshall (2003), students' "engagement, and level of motivation, depends on the level of *ownership* of their music making: on their autonomy within it, and the extent to which they can exert control" (p. 272).

Encouraging students to attribute musical achievement to effort rather than ability is desirable. Unfortunately, music is perceived to be an area where traditionally it has been mistakenly viewed as dependent on innate ability. McPherson (2007) suggests that

> *the general public view of musical achievement as innate rather than environmentally determined demonstrates a serious lack of understanding about the nature of musical potential. This view is in stark contrast to research in music and psychology, which places a much greater emphasis on environmental factors in developing children's talent. … Great musicians consistently put a great deal of effort and practice into developing their craft. (pp. 21-22)*

Children need to be encouraged to have an incremental view of their musical ability, otherwise they are likely to not even 'have a go'. This can be accomplished if children are encouraged to think of music as something that everyone can do, rather than as a specialised activity. "Self-identity is an inextricable part of the process of development itself: thinking of oneself as a musician can be an important step on the road to becoming one" (Hargreaves & Marshall, 2003, p. 272). Children need to develop a positive music self-concept which is likely to occur when they have opportunities for active music making using various instruments in classes. Developing such attitudes needs to occur early on, such as in junior primary and primary, otherwise negative views are more likely to develop and set up barriers to potentially rewarding musical experiences. Hargreaves and Marshall (2003, p. 265) suggest that "children actively *construct* their own musical identities which can determine skill, confidence and achievement". This directly impacts upon the enjoyment likely to be experienced and therefore the motivation to persist.

Within music classes, opportunities abound for learning experiences based on interactions with others, thus reflecting the view of social constructivist learning theory. Although the areas of listening, composing and performing can be highly individual activities, they also lend themselves to shared classroom experiences

in different ways. Listening can be a shared experience, for example, when the whole class listens to the same music collectively. Listening can also be an individual, personalised activity (assuming access to individual playback equipment) which can later be shared and discussed with classmates. Small group composing activities can provide support for the collaborative development of creative ideas, and may generate individual interest in further composing activity. Playing music in ensembles offers scope for varying levels of skill while providing the medium for working collectively on projects with a common goal, that is, playing pieces. Having an audience as a goal, whether it is to visit a residence for elderly people, to invite parents to a class performance, or to burn a CD of the school term's pieces, can enhance motivation and generate a sense of purpose for the class ensemble. If students have some say in the repertoire being played and are encouraged to contribute by thinking critically about the sound and how to improve it, then this contributes to students being actively engaged.

References

Austin, J. R. & Vispoel, W. P. (1998). How American adolescents interpret success and failure in classroom music: relationships among attributional beliefs, self-concept and achievement. *Psychology of Music*, *26*(1), 26-45.

Bandura, A. (1986). Social foundations of thought and action: a social cognitive theory. Englewood Cliffs, N. J.: Prentice-Hall

Bandura, A. (1997). *Self-efficacy: the exercise of control.* New York: Freeman.

Boal-Palheiros, G. & Hargreaves, D. (2001). Listening to music at home and at school. *British Journal of Music Education*, *18(2),* 103-118.

Cox, G. & Pitts, S. (2003). Editorial. *British Journal of Music Education, 20*(3), 227.

Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.

Dweck, C. S. (2000). Self-theories: their role in motivation, personality and development. Philadelphia, PA: Psychology Press.

Dweck, C. S. & Molden, D. C. (2005). Self-theories: their impact on competence motivation and acquisition. In A. J. Elliott & C. S. Dweck. (Eds.), *Handbook of competence and motivation* (pp. 122-140). New York: Guilford Press.

Elliott, D. J. (1995). *Music matters: A new philosophy of music education*. New York: Oxford University Press.

Hargreaves, D. J. & Marshall, N. (2003). Developing identities in music education. *Music Education Research*, *5*(3), 263-274.

McCormick, J. & McPherson, G. E. (2003). The role of self-efficacy in a musical performance examination: an exploratory structural equation analysis. *Psychology of Music*, *31*(1), 37-51.

McPherson, G. E. (2007). Children's motivation to study music in schools. In A. Sternberg, J. McIntosh & R. Faulkner (Eds.), *Proceedings of the XVI national conference of the Australian Society for Music Education* (pp. 21-25). Perth: ASME.

O'Neill, S. A. (2002). The self-identity of young musicians. In R. MacDonald, D. Hargreaves, D. Miell (Eds.), *Musical identities* (pp. 79-96). Oxford: Oxford University Press.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 66-78.

Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.

Zimmerman, B. J. (2000). Self-efficacy: an essential motive to learn. *Contemporary Educational Psychology, 25*, 82-91.

Zimmerman, B. J. & Kitsantas. (Eds.). (2005). The hidden dimension of personal competence: self-regulated learning and practice. In A. J. Elliott & C. S. Dweck (Eds.), *Handbook of competence and motivation*, (pp. 509-526). New York: Guilford Press.

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