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Elementary and secondary music students' achievement motivation was characterized by the reasons they cited for success and failure in music. The students' free responses were classified according to the two-dimensional model of Attribution Theory in which the causes of success and failure are categorized by locus of control, internal or external, and stability through time, stable or unstable. The major findings of the study were that 80% of the reasons cited for success and failure in music were internal in nature, a greater number of stable reasons were cited for success while more external-unstable reasons were cited for failure, females cited more internal-stable reasons than males, the frequency of internal-stable reasons increased with grade level while internal-unstable reasons declined, and the school attended significantly influenced the type of reasons students provided. The importance of these findings to music education practice and their relationship to previous research in achievement motivation was discussed.

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Student Beliefs About the Causes of Success and Failure in Music: A Study of Achievement Motivation

Music educators have long realized the importance of motivating students to achieve musically. However, few systematic attempts have been made to study the role of motivation in musical achievement. One means of analyzing motivation is provided by Attribution Theory (Weiner, 1974, 1979). In this theory, the determinants of student action are deduced from reasons students cite about success and failure at a task. The theory holds that what students attribute to be the causes of success and failure at a task will mediate how the task is approached in the future. For instance, a student who attributes success at playing a musical instrument to diligent practice would more likely persist in learning to play a difficult musical work than one who attributes success to a matter of luck. Research has shown that four causal categories can

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represent a majority of reasons students cite for success and failure: ability, task difficulty, luck, and effort. The purpose of the present investigation was to utilize Attribution Theory as a basis for understanding the motivational elements inherent in the reasons students cite of why some people are successful in music and others are not.

The present investigation considerably expanded an earlier study (Asmus, 1985) by including a broader spectrum of elementary and secondary school music students from eight grade levels rather than one in the subject population and by employing a greater number of independent variables in the analysis. Five specific null hypotheses guided the course of this investigation: (a) No differences would exist in the observed frequency of attributions between the four major causal categories of Attribution Theory, (b) there would be no differences due to whether the attributions were made about those who are successful in music or those who are not, (c) there would be no differences in attributions due to subject gender, (d) there would be no differences in attributions due to subject grade level, and (e) there would be no differences in attributions due to school attended.

RELATED LITERATURE, MOTIVATION IN MUSIC LEARNING

Influential Factors

The study of motivation in musical achievement assumes that the way students perceive themselves and music influences how much they will strive to learn this art. Raynor (1981a) has indicated that the importance of music activities to an individual is influenced by the same value sources that influence other human activity. The values students place on activities can be identified from the reasons they cite for participating in an activity. A wide variety of reasons are typically cited, which has led to a variety of ways of viewing the determinants of student action (Parsons, 1983; Raynor, 1983).

Self-concept. Raynor (1983) has indicated that individuals who are motivated for music-related activities have self-concepts that are inherently involved with music. The important influence that self-concept can play in determining musical outcomes has been demonstrated by a number of researchers (Covington, 1983; Greenberg, 1970; Michel, 1971; Nolin & Vander Ark, 1977; Vander Ark, Nolin, & Newman, 1980; Wink, 1970; Wolff, 1978). Generally, this research found that positive self-concept was associated with successful task performance and successful task performance, in turn, resulted in positive self-concept.

Reinforcement theory. One perspective of motivation in musical achievement is provided by operant music learning research. This research studies the effects of reinforcement strategies on student behavior. Greer (1981) analyzed operant music learning research for its involvement in motivation and affect through an extensive literature review. In this review, Greer points out that, "Most, if not all operant research has been concerned with motivation" (p. 103). The goal of teaching with operant techniques is to apply reinforcements in order to modify

student behavior until success at a learning task is obtained. Raynor (1981b), in response to Greer's presentation, cautions that previous successful experiences have not influenced student motivation in a manner predicted by reinforcement theory. Raynor concluded that the effect of success varies due to individual differences and the particular striving stage of the individual at a task.

Research Findings

Motivation and music teaching. A number of researchers have studied the influence of motivation on the achievement of practicing music educators and those studying to enter this profession. Krueger (1974), in an extensive study of the relationship of personality and motivation to the success of music teachers, concluded that personality and motivation were strongly related to music teaching success. Caimi (1981) and Walker (1979) both used the motivation analysis test (Cattell, Horn, Sweeney, & Radcliffe, 1964) as their measure of motivation. Walker determined that high achieving students in music education courses had positive self-concepts, were strongly attached to loved ones, had low destructive/hostile impulses, and worried little about their safety. Caimi found that the musical performance level of bands was related to the directors' concern for security and attitude toward the parental home while nonperformance musical achievement of band members was related to the directors' concern over the ethical-unselfish self.

Asmus (1986) utilized Attribution Theory to study music education and music therapy students' achievement motivation and self-perceptions of success tendency. These students attributed the success and failure of others to effort while attributing their own success and failure to task difficulty. Self-perceptions of success tendency were found to be strongly related to attributions made of success and failure. In addition, a strong relationship was found between self-attributions in music and self-attributions in academics.

Motivation and student achievement. A few research studies have specifically investigated student motivation in the music learning process. Reimer (1975) employed Attribution Theory to study the affective consequences of teacher-provided casual feedback. College subjects, who believed they were in a piano practicum, received instructions that described causes of piano playing success as due to either ability, effort, task simplicity, or chance. All subjects received feedback that they were successful on their piano performance. Subjects who received internal attribution instructions, ability or effort, had more positive affect toward piano performance and the instructor.

Asmus (1985) classified sixth-grade music students' reasons of why some students succeed in music and why some students do not according to Attribution Theory. The study employed Weiner's (1974) original two-dimensional attribution model of ability, task difficulty, luck, and effort. Results indicated that students attributed success and failure in music as due to the internal reasons of ability and effort. No differences were found between failure or success responses while significant

differences among the three participating schools were obtained.

Lillemyr (1983), in a study of fourth-grade Norwegian students, found that students with high self-concept tended to have higher perceptions of their cognitive competence, greater interest in school music, more positive self-esteem, higher achievement motivation, and lower levels of failure avoidance than those with low self-concept. Students with a high level of interest in school music tended to have higher perceptions of their musical competence, greater success motivation, more positive perceptions of their ability as students, greater failure avoidance, and lower perceptions of their physical competence than those with low levels of musical interest.

RELATED LITERATURE, ATTRIBUTION THEORY

Description

Attribution Theory assumes that performance on an achievement task is mediated by an individual's beliefs about the causes of success and failure (Bar-Tal, 1978). Weiner (1974) found that students' attributed causes for success and failure at achievement tasks could be organized into four major causal categories: ability, task difficulty, luck, and effort. Ability and task difficulty were found to be perceived as the causes of consistent events while luck and effort were perceived as causes of inconsistent events (Frieze & Weiner, 1971). This allowed the causal categories to be characterized by a stability dimension in which a cause was either stable or unstable. Similarly, ability and effort were perceived as causes originating within the individual while task difficulty and luck were perceived as causes outside the individual. Thus, a second locus of control dimension could characterize the causes as internal or external. This resulted in the original two-dimensional conceptualization of Attribution Theory (Weiner, 1974). Weiner (1979) later expanded the original conceptualization by including a third dimension of controllability, controllable or uncontrollable, and renaming the locus of control dimension to locus of causality. The revised model retained ability, task difficulty, and luck, which were conceived as uncontrollable causes. A new internal-unstable category of mood was added to complete the uncontrollable causes. The four controllable causes consisted of a division of effort into typical effort, internal-stable, and immediate effort, internal-unstable. The controllable causes of teacher bias, external-stable, and unusual help, external-unstable, were added to complete the 2 x 2 x 2 matrix. Most research, however, has employed the two-dimensional model of Attribution Theory.

Summary of Major Research Findings

Numerous investigations employing Attribution Theory have been undertaken in the fields of education and social psychology. This research has been tremendously important in detailing motivation from students' underlying beliefs about the causes of success and failure. A summary of the major findings of this research indicates that: Gender

and socioeconomic effects on attribution vary with the task (Bar-Tal, 1978; Bar-Tal, Goldberg, & Knaani, 1984; Raviv, Bar-Tal, Raviv, & Bar-Tal, 1980); expectancy of success at a task generally influences the attributions made (Bardwell, 1984; Chapman & Lawes, 1984; Covington & Onelich, 1979; McMahan, 1973); teachers are affected by the types of attributions students make (Beckman, 1976; Medway & Lowe, 1980; Prawat, Byers, & Anderson, 1983; Ross, Bierbrauer, & Polly, 1974); attributions are correlated with school performance, academic affect, and self-concept (Fitch, 1970; Marsh, Cairns, Relich, Barnes, & Debus, 1984; McFarland & Ross, 1982; Thomas, 1980; Weiner, Russell, & Lerman, 1979); and the two-dimensional conceptualization of student attributions is the most prevalent in the literature.

METHOD

Subjects

The subjects were 589 students enrolled in music courses in grades 4 through 12. The music courses included instrumental, vocal, and general music subject areas. Eight different public schools representing a varied socioeconomic constituency participated in the study.

Procedure

Response Form

The form used in obtaining subject responses was essentially the same as that used by Asmus (1985) with the addition of background items to collect information on subject gender and grade level. The form utilized an open-ended response format in which subjects were to state five reasons why some students do well in music and five reasons why some students do not do well in music.

Open-ended response formats have been utilized successfully in a number of investigations (Asmus, 1985; Elig & Frieze, 1974; Frieze, 1976) and have the advantage of allowing subjects the opportunity to provide a broader variety of attribution responses than is possible with structured approaches (Elig & Freize, 1979). The collection of a broad spectrum of responses through an open-ended approach was perceived as an advantage to the present study because few music education research studies have utilized attributions to investigate motivation and none have focused on the grade levels represented by the subjects of this investigation.

Data Collection

Data were collected from subjects during their regular music classes. The test forms were distributed, instructions for completing the form were given, and sufficient time was provided for subjects to complete their responses. The amount of time varied due to subject grade level; subjects at lower grade levels required more response time than subjects

in higher grades. Not all subjects were able to provide five reasons for each of the success and failure response directives. Data from these subjects were retained for analysis if these subjects had seriously applied themselves to the data collection task. A total of 5092 attributions of why some students do well in music and why some do not were provided by the subjects.

Statement Classification

Three judges classified each subject response according to Weiner's original two-dimensional conceptualization of Attribution Theory. The two-dimensional model was utilized rather than the more recent three-dimensional model because it has been the model most frequently used by previous research, it provides a reduced number of dependent measures—four instead of eight—and an initial review of student responses found numerous causes without any control information required to classify statements according to the three-dimensional model. Judges were initially trained to categorize each statement according to the keywords for each cell in the two-dimensional model: ability, task difficulty, luck, and effort. Interjudge reliability of the statements categorized in this manner was found to be extremely poor. After consultation with the judges, it was decided to reclassify all statements according to the dimensional labels of the two-dimensional model: internal-stable, external-stable, external-unstable, and internal unstable. Interjudge reliability for the reclassified responses, as indicated by the intraclass correlation coefficient, was found to be very satisfactory ($r = .998$).

RESULTS AND DISCUSSION

Distribution of Attributions

A one sample chi-square test (Siegel, 1956) was used to test the hypothesis that attributed causes of success and failure in music were evenly distributed across the four attribution categories. The attribution category scores for all subjects were summed across the success and failure directives to obtain the total number of responses made in each of the four categories. A highly significant difference was obtained between the observed and expected frequencies (Chi-square = 3611.87, $df = 3$, $p < .001$). The relative proportions of responses in each of the attribution categories were as follows: internal-unstable, 38.65%; internal-stable, 42.92%; external-unstable, 9.85%; external-stable, 8.59%. Internal-stable attributions were the most commonly cited ($n = 2314$). Also frequently cited were internal-unstable attributions ($n = 2084$). Much less commonly used were the external attributions, external-stable ($n = 463$) and external-unstable ($n = 521$), which were cited in less than 20% of the cases.

The kinds of attributions made about success and failure in music by these subjects were similar to those observed in a previous study of sixth graders upon which this research was based (Asmus, 1985). The music

students attributed the causes of success or failure in music to internal reasons approximately 80% of the time. A slight majority of these reasons were found by the present study to be due to stable causes that have traditionally been described as ability related. This is similar to the results obtained by Frieze and Snyder (1980), who also found that first, third, and fifth graders tend to attribute success and failure in art to internal causes with the majority being ability (internal-stable) rather than effort (internal-unstable) related. The tendency for internal attributions has also been found in college students' views of school situations (Frieze, 1976), teachers referrals of students for special education (Christenson, Ysseldyke, Wang, & Algorzzine, 1983), and attributions made in success settings (Luginbuhl, Crowe, & Kahan, 1975), while the greater use of stable or unstable causes varied among these studies.

A number of implications for music education can be extracted from the results obtained here. Teachers have been shown to attribute student success and failure to effort (Asmus, 1986; Prawat, Byers, & Anderson, 1983). Fortunately, students also attribute a large portion of reasons for success and failure in music to internal-unstable causes. Internal-unstable causes, such as effort, encourage student persistence until a task has been successfully achieved. Unfortunately, students attribute a slightly greater proportion of reasons for success and failure in music to internal-stable causes such as ability. Internal-stable attributions do not promote achievement persistence at the same level as internal-unstable attributions because they rely on the innate capabilities of the student. Recent research by Ames (1984) found that students made more ability attributions in competitive settings than in individually nurturant settings. When music educators make competitive statements such as, "We will audition for who will be section leader," or "Only those who can sing their part will be able to play the drum today," may be forcing students into making internal-stable attributions. Society as a whole promotes the use of internal-stable attributions for musical achievement. Statements frequently made about those who are successful in music include "She has the gift of music" and "He is musically talented," which emphasize internal-stable attributions. If the goal of music education is to promote musical achievement by all students, it would appear that internal-unstable, effort related attributions should be encouraged.

Group and Response Mode Differences

Statistical Analysis

A three-way repeated measures multivariate analysis of variance (MANOVA) was used to test the four hypotheses that dealt with differences in attributions due to response mode, gender, grade level, and school. Gender, grade level, and school were main effects in the analysis, while response mode was the repeated factor. The dependent measures of the analysis were the subjects' four attribution category scores obtained from each of the two response modes. Results of this analysis are presented in Table 1. Because of the large sample size and

Table 1
Repeated Measures Multivariate Analysis of Variance

Source	Wilks lambda	Hypoth. *MS*	Error *MS*	*F*	*df*	*p*<
Gender	0.965			4.850	4,541	0.001
Internal-stable		29.007	2.209	13.134	1,544	0.001
Grade	0.715			5.942	32,1997	0.001
Internal-stable		26.663	2.209	12.073	8,544	0.001
Internal-stable		42.767	2.856	14.973	8,544	0.001
External-stable		2.169	0.583	3.723	8,544	0.001
External-unstable		2.441	0.624	3.911	8,544	0.001
School	0.851			3.190	28,1952	0.001
Internal-stable		7.711	2.209	3.492	7,544	0.001
Internal-unstable		13.090	2.856	4.583	7,544	0.001
External-stable		2.064	0.583	3.543	7,544	0.001
External-unstable		2.371	0.624	3.799	7,544	0.001
Gender x grade	0.911			1.602	32,1997	ns
Gender x school	0.952			1.349	20,1795	ns
Grade x school	0.902			1.578	36,2029	ns
Gender x grade x school	0.967			0.758	24,1889	ns
Response mode	0.871			20.080	4,541	0.001
Internal-stable		20.659	0.537	38.507	1,544	0.001
External-stable		2.568	0.204	12.595	1,544	0.001
External-unstable		2.038	0.202	10.088	1,544	0.002
Mode x gender	0.995			0.719	4,541	ns
Mode x grade	0.947			0.931	32,1997	ns
Mode x school	0.897			2.132	28,1952	0.001
External-stable		0.994	0.204	4.874	7,544	0.001
Mode x gender x grade	0.962			0.661	32,1997	ns
Mode x gender x school	0.963			1.030	20,1795	ns
Mode x grade x school	0.910			1.441	36,2029	ns
Mode x gender x grade x school	0.941			1.383	24,1889	ns

the relative ease of obtaining statistical differences with such a large sample size, only alpha levels of .005 or less were considered significant.

Response Mode Differences

A significant difference was obtained between subject attributions assigned for doing well in music and those not doing well in music that indicated that subjects made different attributions in these two response modes. Univariate repeated measures analyses of variance for this significant factor indicated that internal-stable, external-stable, and external-unstable attribution categories contributed significantly to this effect. Subjects made more internal-stable and external-stable attributions to the do well directive while more external-unstable attributions were made to the do not do well directive (Table 2).

The finding of a significant difference due to response mode was opposite that obtained by the earlier study upon which the present research was based (Asmus, 1985). The lack of such a difference in the

Table 2
Means and Standard Deviations for All Significant Main Effects

Variable	*Mean*	*SD*	*n*	Variable	*Mean*	*SD*	*n*
Gender (internal-stable)							
Females	4.205	2.318	332				
Males	3.572	2.280	257				
Grade (internal-stable)				Grade (internal-unstable)			
4	2.211	2.962	38	4	5.579	2.728	38
5	1.921	2.294	38	5	5.868	2.859	38
6	4.346	2.813	26	6	4.077	2.799	26
7	3.783	2.189	120	7	3.983	2.744	120
8	3.854	2.155	171	8	3.491	2.678	171
9	4.190	1.732	58	9	3.086	2.122	58
10	4.612	2.149	49	10	2.184	2.038	49
11	5.070	1.844	43	11	2.256	1.416	43
12	5.304	2.169	46	12	1.848	1.660	46
Grade (external-stable)				Grade (external-unstable)			
4	0.236	0.590	38	4	0.421	0.976	38
5	0.947	1.576	38	5	0.316	0.662	38
6	0.115	0.326	26	6	1.346	1.355	26
7	0.650	1.001	120	7	0.858	1.190	120
8	1.018	1.331	171	8	0.959	1.238	171
9	0.793	0.913	58	9	0.741	0.947	58
10	0.837	1.068	49	10	1.082	1.288	49
11	0.884	1.117	43	11	1.070	0.961	43
12	0.826	0.877	46	12	1.283	1.186	46
School (internal-stable)				School (internal-unstable)			
1	4.688	1.907	80	1	2.088	1.857	80
2	3.831	2.226	65	2	3.877	2.719	65
3	4.226	2.184	62	3	2.468	2.102	62
4	2.052	2.356	77	4	5.766	2.786	77
5	3.484	2.641	62	5	4.210	3.310	62
6	4.480	1.910	100	6	2.870	1.862	100
7	4.851	2.439	67	7	3.373	2.902	67
8	3.697	1.804	76	8	3.868	2.217	76
School (external-stable)				School (external-unstable)			
1	0.688	1.001	80	1	1.150	1.080	80
2	0.508	0.710	65	2	1.015	1.269	65
3	1.484	1.264	62	3	1.290	1.486	62
4	0.584	1.229	77	4	0.364	0.826	77
5	0.436	0.986	62	5	1.177	1.287	62
6	0.900	0.969	100	6	0.970	1.159	100
7	0.791	1.320	67	7	0.508	0.805	67
8	0.895	1.228	76	8	0.803	1.071	76
Response mode (internal-stable)							
Do well	2.097	1.303	589				
Do not	1.832	1.240	589				
Response mode (external-stable)				Response mode (external-unstable)			
Do well	0.440	0.699	589	Do well	0.409	0.639	589
Do not	0.346	0.608	589	Do not	0.492	0.694	589

earlier study may be explained by its limited subject population. That study used only 6th graders as subjects while the current study used 4th through 12th graders. The significant difference due to response mode obtained by the present study implies that music educators will need to consider whether a student has been successful or not when providing feedback after an achievement task to assure that students modify their attributions in a manner conducive to furthering their musical achievement. The significant impact of feedback on students' musical learning has been clearly demonstrated by operant music research (Greer, 1981) and is consistent with the conclusion drawn here.

Gender Differences

A significant gender difference was revealed by the MANOVA which subanalyses of variance indicated to be due to the internal-stable attribution category (Table 1). Females made more internal-stable attributions than males (Table 2). This finding contradicts that of previous research in which females tended toward more external attributions (Bar-Tal, 1978) or no differences due to sex were found (Bar-Tal, Goldberg, & Knaani, 1984; Raviv et al., 1980). One cause of this contradiction could be the generally feminine view society places upon music. Students may learn that it is all right to have musical ability, an internal-stable cause, if you are female, but not if you are male.

Grade Level Differences

A significant grade level main effect was indicated (Table 1). Subanalyses revealed that all attribution variables contributed to this effect. Inspection of the means revealed an interesting trend for the two internal attributions (Table 2), which is displayed graphically in Figure 1. As student grade level gets higher, the number of internal-unstable attributions decreased while the number of internal-stable attributions increased. Students made a shift in their internal attributions from unstable, effort related, to stable, ability related, causes. As pointed out earlier, this may not be desirable and may be a function of learning both in the music class and in life.

Student persistence to attain at achievement tasks is assumed to decrease with such a shift. This finding supports the beginning of formal music instruction and the broad availability of music instruction in the early grades where task persistence may be greater. Current music education practice reduces the availability of music instruction at higher grade levels. An interesting problem for future research would be to determine if the shift to internal-stable attributions is a result of music education practice or if the reduced availability of music instruction at higher grade levels is a result of inherent motivational changes in the students.

The shift from internal-unstable attributions to internal-stable attributions with increasing grade level is consistent with Raynor's (1981a) stages of career striving in which sources of motivational value are time-linked. During early stages of striving, when a student is "becoming,"

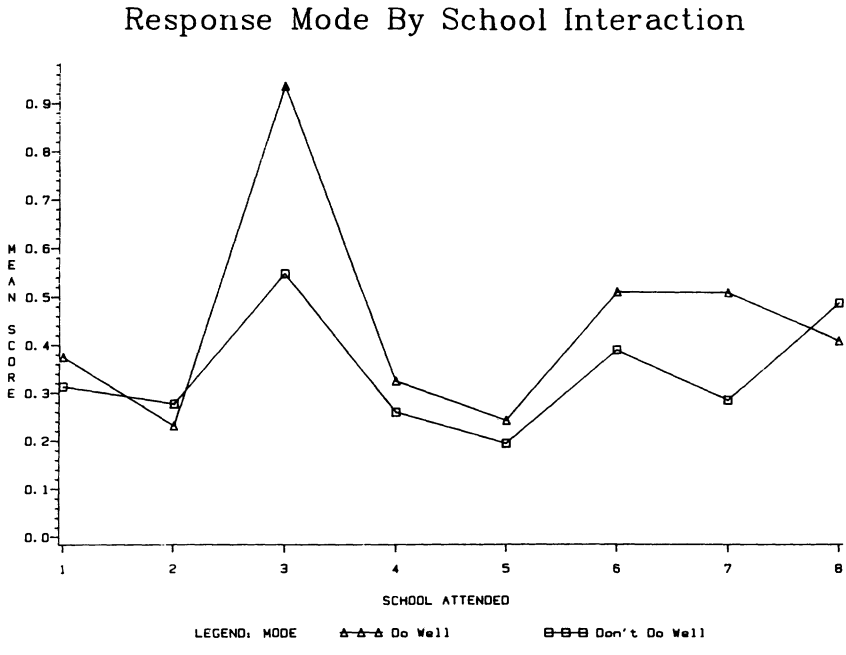

Figure 1. Mean number of responses for each of the internal attribution categories by grade level.

these data suggest a greater use of persistence promoting internal-unstable attributions. As the student matures toward the final stage of "having been," these data indicate a steady shift toward ego protective internal-stable attributions.

The pattern of responses on the external variables is not as clear as that for the internal variables. Generally, the number of external attributions, both stable and unstable, increase with grade level. This would also be consistent with the view that there is an ego protective shift during later stages of striving at a task.

School Differences

Differences in attribution responses were found due to school (Table 1). Like the grade level main effect, these differences were obtained for all four attribution variables. Inspection of the means revealed no clear pattern or trend in the way the attributions were assigned (Table 2). A previous study (Asmus, 1985) also found significant differences between schools, although the differences were not found for external-stable attributions. This difference between studies may again be a result of the restricted sample in the earlier study. Because instrumental, general, and vocal music educators tend to teach all students studying in any of these areas within a particular school, it is proposed that the school effect witnessed in this and the previous research is actually a teacher effect.

Further research, however, will be necessary to provide evidence for this proposition.

Interaction Effects

One significant interaction effect was noted in the MANOVA (Table 1). This interaction was obtained between response mode and school on the external-stable attribution category. The schools indicated by Figure 2 to be responsible for the interaction effect were the two junior high schools participating in the study. Whereas all other schools made higher external-stable attributions to the do well directive, junior high schools made greater external-stable attributions to the do not do well directive (Table 3). This characteristic was unique to the junior high schools and indicates how educational environment can significantly influence students' perceptions of the causes of success and failure in music.

CONCLUSIONS

Summary of Findings

The results of this study indicate that students tend to cite internal reasons for success and failure in music. A majority of the internal

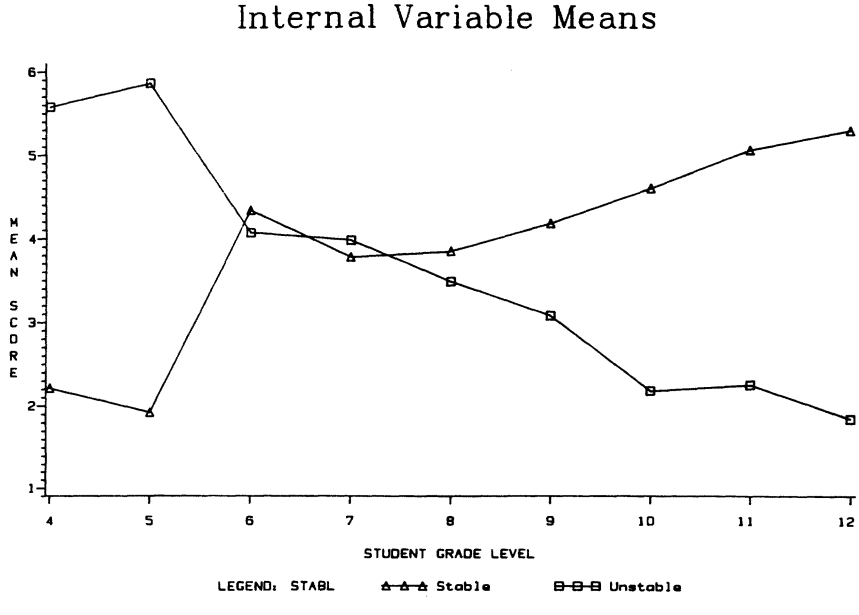

Figure 2. Mean number of external-stable attributions for the significant response mode by school interaction.

Table 3
School by Response Mode Interaction Means and Standard Deviations

School	*n*	Do well		Don't do well	
		Mean	*SD*	*Mean*	*SD*
1	80	0.375	0.560	0.313	0.565
2	65	0.231	0.425	0.277	0.484
3	62	0.936	0.903	0.548	0.694
4	77	0.325	0.697	0.260	0.637
5	62	0.242	0.564	0.194	0.507
6	100	0.510	0.611	0.390	0.549
7	67	0.508	0.859	0.284	0.647
8	76	0.408	0.696	0.487	0.702

reasons were found to be stable in nature. Students were found to attribute a greater number of stable attributions when citing reasons why some people do well in music and a greater number of external-unstable reasons when citing reasons why some people do not do well in music. Unlike previous attribution studies, females made more internal-stable attributions than males. Differences in attributed causes were indicated due to grade level. As grade level increased, students increased the number of internal-stable attributions while decreasing the number of internal-unstable attributions. It was also found that with increasing grade level the number of external attributions increased. The school attended significantly influenced how students responded in all four of the attribution categories. It was proposed that this effect actually was indicative of teacher influences. Junior high school students responded with a greater number of external-stable attributions while citing reasons for failure in music while all other schools made greater external-stable attributions when citing reasons for success in music.

Implications for Teaching

A basic tenet of Attribution Theory applied to music education is that beliefs students have about the causes for success and failure at a musical task will influence how the students approach the task in the future. Teachers who encourage students with effort related attributions are more likely to have students who adopt the view that if they try hard and apply themselves, they can achieve in music. Such a view is congruent with the idea that practicing will make a student a better musician and is more likely to result in students who do practice. Those teachers who promote ability related attributions are suggesting to students that it is some innate characteristic that only a few people possess that allows them to be good at music. Students who adopt such a belief pattern are less apt to practice unless they view themselves as an individual with the requisite talent.

This study has shown that students shift their attributions as they get older. When young, students tend to use effort related attributions,

while as they get older, their attributions change toward ability related attributions. Young students believe that if they try hard they will succeed at music. Most teachers want their students to apply themselves diligently in their musical pursuits. Unfortunately, the results of this study indicate that the older students get, the less likely it is that their attitudes are conducive for applying themselves at the levels most teachers would want. Therefore, it seems crucial that teachers at all grade levels should encourage students to adopt effort related attributions so that students are motivated to put in the effort required to become proficient at music. It is interesting that the shift between effort related and ability related attributions occurs during the sixth and seventh grades. These are grades when teachers often have trouble keeping students involved with music.

Future Research

A number of future research topics were suggested by the obtained results. During the classification of student responses into the categories suggested by traditional Attribution Theory, it was noted that reasons students cite for success and failure in music did not fall well into the four major Attribution Theory categories as defined by the traditional labels of ability, task difficulty, luck, and effort. A fruitful avenue of research would be to assess the dimensionality of student reasons for success and failure in music through some technique such as factor analysis. An outgrowth of such a study could be a measurement device that would assess student motivation through each of the dimensions identified. Once a reliable and valid measurement device is available, it could be employed with other measures that have been found to be correlated with musical achievement to determine just how large a role motivation plays in musical achievement. Another important avenue of research would be to validate empirically the assumption that teachers have a tremendous influence over the types of attributions their students make. While the present study has provided a number of insights into motivation in musical achievement, a tremendous amount of research effort needs to be expended before a comprehensive understanding of motivation in music is possible.

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