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Abstract

As a part of a larger international mapping exercise to examine students' motivation to study music as compared to other school subjects, this article reports data drawn from a sample of 2257 Israeli students (primary to high school). Questionnaires were based on the expectancy-value theoretical framework by examining students' perceptions of values, competence and task difficulty. Mixed-design ANOVAs were used to examine differences in students' motivational beliefs across school levels, between music and non-music learners, and between girls and boys. Results of the analyses showed two major issues distinctive from the comparison of the eight-country analyses: (a) the lowest perceptions of task values and competence beliefs for any country among non-music learners in the upper level grades, and (b) a significant developmental increase in task difficulty for music as compared to other school subjects. In addition, the results of the Israeli data revealed that music learners attached higher values to music, art and science than non-music learners, and expressed significantly lower perceptions of difficulty for music, art and science than non-music learners. Furthermore, while music was one of the lowest-ranked subjects for in-school study, it was one of the highest-ranked subjects for out-of-school study. This suggests that music participation itself is not lacking in motivation or interest among students in Israel, but that the school system is not presently providing for the musical needs and interest of much of its youth population, in upper-level grades (middle and high school).

Keywords

competence beliefs, expectancy-value theory, cross-cultural comparisons, motivation, music education, school subjects, self-beliefs, task difficulty, values

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The context for this article

This article reports data drawn from an international mapping exercise that involved eight different countries (Brazil, China, Finland, Hong Kong, Israel, Korea, Mexico, and the USA), which examined students' motivation to study music as compared to other school subjects (e.g., art, mother tongue language, physical education (PE), mathematics, science). Readers should refer to the lead article in this series (McPherson & O'Neill, this issue) for a full explanation of the theoretical assumptions underpinning the study, reliability and validity of the questionnaire scales, and description of the methods used to gather and analyse data. Further information on the eight-country analysis can be obtained by contacting the research team leader (McPherson) or, in the case of this article, the lead author.

The studies in this series draw on the expectancy-value theoretical framework (Eccles et al., 1983; Eccles, Wigfield, & Schiefele, 1998) to examine the competence beliefs, values and perceptions of task difficulty of 24,143 students across the eight countries. Competence beliefs were defined as expectations for success or the belief about how well each student thought she or he could do in each subject or upcoming task. Subjective task values were conceptualized in terms of four major components: *attainment value* or importance, *intrinsic value* or interest, *utility value* or usefulness, and the *cost* of participating in the subject.

Four key issues in the overall eight-country analysis as reported by McPherson and O'Neill (this issue) were investigated: (a) whether competence beliefs and values declined across all eight countries; (b) whether perceptions of task difficulty increased across school levels; (c) differences in students' rating of competence beliefs, values and task difficulty for music as compared to other school subjects; and (d) differences among boys and girls, and those students who were or were not learning an instrument or voice (either in or outside of school).

Across the lead article and individual country analyses, a variety of multivariate analysis of variance (MANOVA) and mixed-design ANOVAs were used to examine students' cumulative mean ratings for each of the three motivation measures (competence beliefs, values, task difficulty). The within-subjects factor (school subjects) and between-subjects factors and interaction effects for school level, gender and music learning are reported for each country. Tukey tests were used for post hoc comparisons. Because of the large sample size, a statistical significance level of .001 was set in the lead article but adjusted where necessary in individual country analyses.

Gary E. McPherson (research team leader)

The nature and scope of Israel's music and music education

Israel's multicultural society, compiled primarily of an immigrant population, seeks to synthesize a variety of very different traditions. Working towards supporting the coexistence of peoples who arrived in Israel from disparate countries from the East and West, Israel strives to help its citizens preserve their original customs and traditions, while laying the foundations for a more homogeneous society. The need to achieve these objectives is particularly evident when examining the kaleidoscopic mosaic of styles and repertoires represented in Israel's music. Music education in Israel addresses this colourful blend of cultures, resulting in a vibrant discipline, recognized both for its high artistic quality and its function as a catalyst for social integration.

Israel's educational system

From the time of its inception as a state in 1948, Israel has placed education among its highest priorities. In 1949 the first compulsory education law for children aged 3–15 was passed. Further extended by laws passed in 1968 and 1998, today, compulsory education includes all children between the ages of 3 and 18 years. The number of students enrolled in K–12 schools during the 2008–09 school year was 1,466,829 (Ministry of Education, 2009c). The Long School Day and Enrichment Studies Law, 1997, increased the number of hours that children spend in school, equalling 41 hours a week for children ages 6–14 years (Israel Ministry of Foreign Affairs, 2003).

The education system in Israel subdivides into three main tracks: state education, state religious education and independent education. In 2009, 644,256 students studied in state schools, 198,586 studied in state religious schools and 255,409 students participated in independent education (Ministry of Education, 2009c). Since 1968, in most places, the schools have been subdivided into three tiers: (a) primary school (grades 1–6, ages 6–12); (b) middle school (grades 7–9; ages 12–15); and high school (grades 10–12; ages 15–18) (Ministry of Immigrant Absorption, 2005). Approximately 78% of the students study in Israeli-Jewish schools, while 22% participate in schools for Israeli-Arab children. Since 1990, the number of children studying in Israeli-Jewish schools rose by 9%, whereas the number of children in the Israeli-Arab schools rose by 40% (Ministry of Education, 2009c).

In state primary schools, approximately 75% of the curriculum is obligatory and 25% is elective. The obligatory curriculum includes four main subject groups: social and religious studies, languages and literature, mathematics and science, and PE. The remaining 25% elective hours propose subjects recommended by the Ministry of Education, such as music, art and social topics. In grades 1–6, principals must choose a minimum of 2 hours per week of arts education, however, not necessarily music. In addition, extensive educational and social activities take place in school, both during and after school hours. These elective activities are generally not free of charge.

State religious schools provide an almost identical basic curriculum in which elective studies emphasize accelerated Jewish and religious studies. In independent education settings, staff and parents determine the instructional and educational norms of each school and the elective curriculum usually exceeds the standard 25%. What distinguish these schools, which at the elementary level are few in number, are their special curricula or educational methods as, for example, in certain experimental schools. The programme in middle school parallels the elementary school curriculum, except that arts education courses are omitted from the list of elective studies. Instead, a second foreign language and computer studies are added. At this level students engage in music and arts only as part of their extra-curricular activities.

While high school students continue to study the core curriculum subjects, several important changes occur. English as a foreign language becomes a prominent subject. In addition, the structure of the curriculum allows students to choose a particular speciality within the high school system, and to determine the scope, level and pace of the subjects that they will study. Students may thus chose to attend general academic schools, in which students cover a full academic programme leading to matriculation; vocation high schools, which offer students a choice of both academic and vocational subjects; agricultural schools; military academies; religious high schools; or specialized schools, such as high schools for the arts. All studies are organized according to varying 'study levels', defined by the number of 'study units' undertaken for a particular subject.

To receive a matriculation certificate, all students must study a minimum of the following mandatory core subjects: Bible – two study units; mathematics – three study units; English – three study units; literature – two study units; history – two study units; Hebrew expression – two study units; and citizenship – one study unit. In Arab, Christian and Druze schools, the exam on biblical studies is replaced by an exam in Islam, Christianity or Druze heritage (Ministry of Immigrant Absorption, 2005). In addition to the mandatory core subjects, students are required to choose at least one elective course from a list of 45 subjects, including, for example, art and music. Finally, to matriculate, students are expected to do volunteer work in 10th grade, and to participate in PE every year. Matriculation certificates enable students to continue their academic studies in a university or college.

Music education in Israel

While policymakers and educators appreciate the value of music education, they unfortunately do not afford music an autonomous identity within the national school curriculum. Rather, as mentioned above, music is one of a general group of subjects that deal with the arts. Today, principals choose music education mainly for their youngest students: 90% of children in grades 1–2 receive music lessons, after which the numbers progressively decline: 60% of children in grades 3–4 participate in music lessons, and less than 40% of children in grades 5–6. In high school, less than 10% of the students elect to study music as part of their school curriculum (Y. Shai, Israel's National Supervisor for Music Education, personal communication, February 2008).¹

Music education in primary and middle schools. The music curriculum in primary school highlights interactive activities that focus on the development of listening, singing, improvisation and creativity skills. Most teachers strive to select a repertoire of pieces that reflect Israel's heterogeneous society and demonstrate a wide variety of local and international traditions and genres.

In the classroom, pedagogical approaches highly value children's intuitive musical perceptions and encourage self-expression in a variety of singing and kinesthetic activities. The programmes also foster a progressively growing understanding of musical concepts and compositional procedures, reflecting structured musical training. In primary school, the teachers address all of the children, and not necessarily the most gifted. To assist teachers in structuring their elementary school curricula, the Music Division at the Amir Institute for Social Integration in the Schools, Bar-Ilan University, has published a graduated set of textbooks for children, with accompanying CDs, teachers' resource books, and supplementary learning materials (Music Division of the Amir Institute, n.d.a).

While the core of music education in the schools is limited, many supplementary programmes provide additional enrichment. In response to a growing awareness of the benefits of playing an instrument and singing, nationally and privately funded projects sponsor additional hours for learning to play an instrument and to sing, as well as school-based youth orchestras. These orchestras perform during school events and for their local communities. The specialist teachers employed for these programmes work primarily in local conservatories, and are hired specifically to encourage school children to become acquainted with and persevere in playing an instrument. Many of the students eventually continue their studies at the local conservatories (Ministry of Education, 2009d, 2009e). These programmes are becoming more and more popular, often encompassing entire cities or districts.

Several successful enrichment programmes emphasize the importance of attending live concerts. Coordinated with the school's music curriculum, the children study pieces that they will hear later in concert. In some programmes, the performers visit the classes before concerts, demonstrating their instruments for the children and playing sections of the music that the children will hear later in full concert. Thousands of children attend these concerts every year (see Jerusalem Academy of Music, n.d.; Levinsky College, n.d.; Music Division of Amir Institute, n.d.b; Rishon LeZion, n.d.; see also Ministry of Education, 2009f).

In addition to programmes that emphasize learning to play instruments, national programmes also promote choral singing. The objectives of these programmes are to help children develop their voices and participate in collective singing, leading to participation in school choirs. Teachers are encouraged to choose repertoire composed by Israeli composers that document important events in the development of the country. School choirs take an active role in the school activities, and often perform in local community functions. Each year, the Ministry of Education sponsors an Assembly of Choirs, where representative choirs from the different national districts come together and perform for one another (Ministry of Education, 2009d). Another special singing programme implemented in the 6th grade targets children from different ethnic backgrounds, who study in a multicultural classroom. In this programme, the children present their songs to their peers. By the end of the year, the children have learned not only to sing songs from many ethnic sources, but also about the cultural traditions and customs of the different ethnic groups (Moroccan, Ethiopian, German, Syrian, Iraqi and others; see Ministry of Education, 2009d).

Additional interdisciplinary programmes, sponsored by private institutions and by the Ministry of Education, reflect a deep conviction regarding the immediate and long-term contributions of music education to the child's holistic development. For example, one such programme aims to help at-risk children develop general learning skills within a music context (Portowitz, Lichtenstein, Egorow, & Brand, 2009), another focuses on developing communication skills (Brand, 2008), and a third, a computer-based programme distributed mainly in the North, highlights interdisciplinary activities (Mayani, 2009). More and more of these programmes are engaging the interest of local mayors and municipalities, indicating that the time is ripe to further nurture these types of activities.

Music education in high school. While the number of high school students enrolled in music programmes is small, these students partake in high-quality, advanced level studies, taught by specialist teachers and assessed in the matriculation exams. Here, music transforms from an essentially extra-curricular, recreational activity to a serious discipline equal in importance to science and mathematics. Subjects offered include theory (ear training, harmony), music history and style analysis, instrumental or vocal performance and creativity. The history courses feature chronological surveys of western art music, world music, and a wide and varied repertoire of pieces gleaned from different styles and genres. Periodic exams throughout a 3-year period map the students' progress, culminating in the final matriculation exams, which often include a recital. These high-quality programmes enrich 120 high schools, but they are present in less than 10% of Israeli high schools.

Teachers

Specialist teachers, holding advanced degrees in music and teaching degrees, teach at all levels K-12. Moreover, the teachers continue to update their expertise throughout their careers and

participate annually in professional development workshops sponsored by the Ministry of Education. In addition to their weekly class lessons, music teachers play active roles in building a positive atmosphere in their schools. They introduce music within core curriculum subjects and take responsibility for all special events, directing choirs and instrumental ensembles, and preparing students to appear in live concerts in or outside the school. High school teachers compile their school's matriculation exams, which are sent for authorization to the Music Division of the Ministry of Education. Once accepted, the teachers administer and grade the exams. In addition, teachers are highly encouraged and praised for promoting individual initiatives. Thus, for example, during the 2008–9 school year, special initiatives included a workshop devoted to opera for students in 11th–12th grades, special celebrations in honour of Mendelssohn's 200th birthday, interdisciplinary student performances, which included music, theatre, and plastic arts, promoting choirs for physically disabled deaf children, and hosting Israeli composers in local schools and community centres (Ministry of Education, 2009b).

National curriculum

A national curriculum for grades 1–12 has been written by leading music educators in Israel, and is now under the final stages of review (Ministry of Education Curriculum Committee, forthcoming). This document establishes national guidelines for a graduated, comprehensive programme, and outlines what children are expected to know by the end of grades 3, 6 and high school. Music in elementary school includes three interactive content areas: listening and appreciating, performing through singing and playing instruments, and creative music-making. Two 3-year stages are marked for evaluation: at the end of the 3rd grade, and at the end of the 6th grade (Ministry of Education, 2009d).

The high school programme sets out choices for the relative number of hours to be devoted to various subtopics: music literature and genres, music history and world music cultures, contemporary and popular music, as well as the interaction between music and other disciplines. All streams include theory, ear training, solfège and harmony, as well as varying degrees of performance (Ministry of Education, 2009a). While providing clear objectives, this document respects the independence and autonomy of individual initiatives, and, as such, provides guidelines, rather than a set syllabus. Once the national curriculum is implemented, the music division of the Ministry of Education will compile and grade the national matriculation examinations, replacing the internal grading system used until this time (Y. Shai, Israel's National Supervisor for Music Education, personal communication, February 2008).

Music outside of school

Israeli youngsters, like their peers throughout the world, spend many of their waking hours listening to a wide variety of popular music, extensively promoted by all strains of the media (Regev & Seroussi, 2004). In addition, more than 15,000 students, aged 6–18 years, study in 40 nationally recognized conservatories. These students learn to play an instrument and/or to sing, partake in general theory and music appreciation lessons, and perform in orchestras and chamber ensembles. Within the last 5 years, the conservatories have adopted a more active role in developing community outreach programmes. As mentioned above, one of the main projects of the conservatories enables them to teach music in the local schools during the morning. These programmes contribute towards raising the level of music education in general, and providing opportunities for underprivileged children to learn how to play an instrument. While

we know the exact number of children enrolled in nationally recognized conservatories, many more children study music in fine institutions that are not officially recognized by the government (Y. Shai, personal communication, February 2008).

Results

Music learning

The questionnaires collected for this study included a sample of 2,257 Israeli students (primary to high school), disseminated among 12 randomly selected schools, 4 serving primary school students (school level 1) and 8 serving middle school and high school students (levels 2 and 3, respectively).² According to students' self-reports of music learning (defined as learning music in or outside school, and learning a music instrument or voice), only 32.1% of the sample viewed themselves as music learners ($n = 660$), compared to 67.9% who reported not being involved in any kind of music learning activity ($n = 1397$). The difference between music learners and non-music learners is largest in high school, where 73.5% of students are not formally learning music in or outside of school.

Descriptive statistics revealed that 11.4% of music learners from the three school levels reported learning exclusively in schools ($n = 75$), while 12.6% were learning music both in and outside of schools ($n = 83$). In contrast, 76.0% of music learners reported learning music only outside of school ($n = 501$). The largest participation in music outside of school takes place in upper school levels 2 and 3 (see Figure 1). According to non-music learners' responses in all levels, 55.0% would be willing to learn music if they were given the opportunity ($n = 696$).

Differences in students' motivational beliefs

ANOVAs with repeated measures (mixed within-between subjects ANOVAs) were used to examine the differences in students' perceptions of the three motivation measures (competence beliefs, values and task difficulty). The results of the analyses showed two major issues distinctive from the comparison of the eight-country analyses: (a) the lowest perceptions of task values and competence beliefs among non-music learners, specifically in upper school levels, and (b) a significant developmental increase in task difficulty for music as compared to other school subjects. This result can be explained by the negative relationship between competence beliefs and perceptions of task difficulty.

Developmental changes in subjective task values and competence beliefs. Mixed two-way repeated measures ANOVAs (School Subject \times School Level) examining differences in students' perceptions of value and competence indicated an overall developmental decrease across school subjects for both values, $F(2, 2053) = 155.49, p < .01$, and competence beliefs, $F(2, 2051) = 73.75, p < .01$. Similar to the results for the combined-countries analysis, Israeli students expressed significantly lower task valuing and perceptions of competence for music and art than for mathematics, mother tongue and PE.

Distinctively, a 4-way standard ANOVA (Country \times School Level \times Gender \times Learning Music) comparing *perceptions to music* across countries showed that Israeli high school non-music learners (both male and female) expressed the lowest values of any country, $F(14, 21832) = 4.46, p < .01$. An additional 4-way ANOVA examining perceptions of competence in music

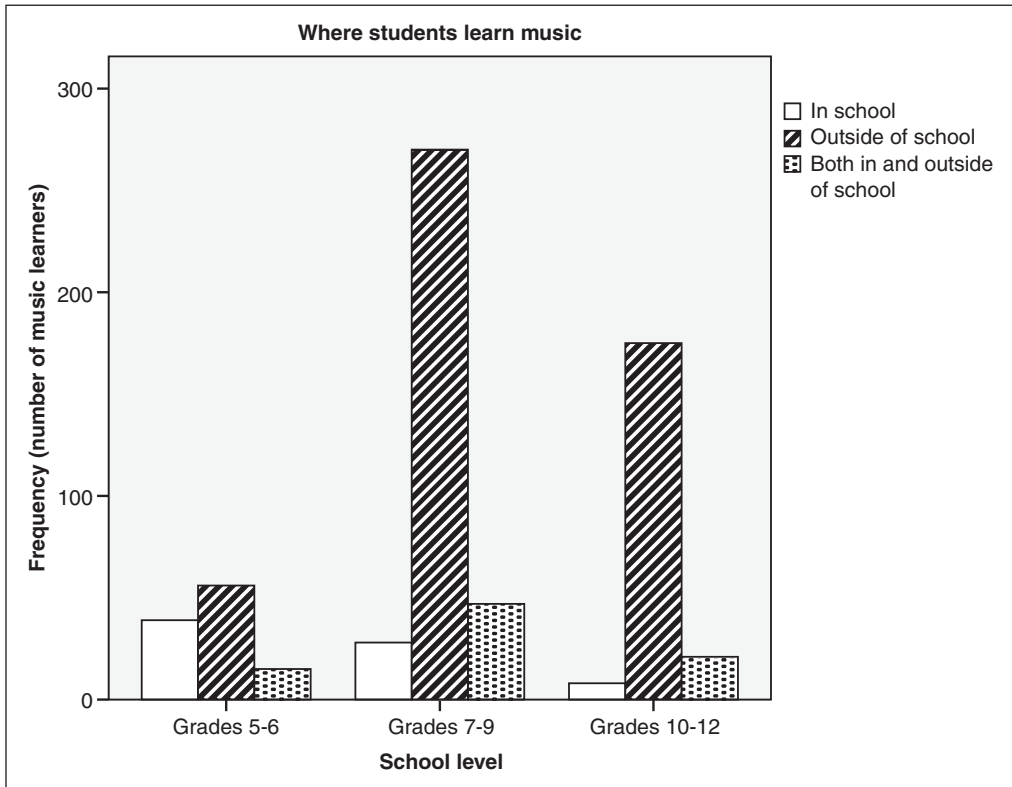


Figure 1. Frequency of students reporting learning music in school (1), outside of school (2), and both in and outside of school (3) across school levels

revealed the sharpest developmental decrease across countries from level 1 to level 3, in that expectancies for non-music learners in Israel were among the lowest for any country at school level 3.

Developmental changes in perceptions of task difficulty. A mixed two-way repeated measures ANOVA (School Subject \times School Level) indicated an overall increase in students' perceptions of task difficulty across school subjects. Unlike results from the eight-country analyses, this analysis showed a significant increase in perceptions of difficulty of music from level 1, where music was ranked among the least difficult subjects, to level 3, where it was considered among the most difficult subjects along with art and science, $F(10, 2037) = 4.81, p < .01$ (School Subject \times School Level interaction, see Figure 2). Although pair-wise comparisons among subjects ranked in each school level revealed that the mean for music in level 1 was only significantly lower than science (adj. $p < .01$), and the mean for music in level 3 was only significantly higher than PE, no similar shift in perceptions of difficulty of music as compared to other school subjects across school levels was found in any of the seven other countries.

Music learning effect in students' motivational profile. A mixed two-way repeated measures ANOVA (School Subject \times Learn Music) was used to examine mean differences between music

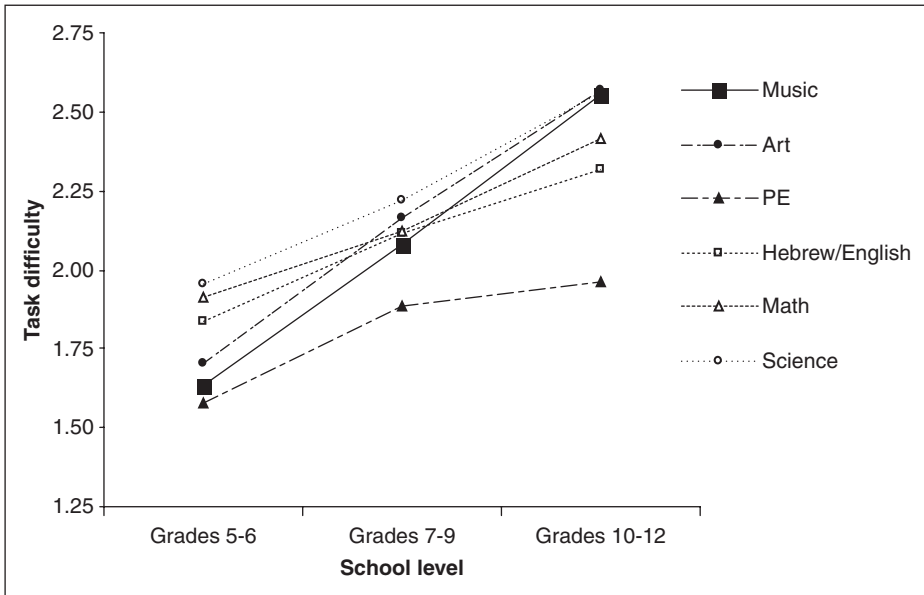


Figure 2. Developmental changes in perception of task difficulty

learners' and non-music learners' motivational profiles towards each school subject. The results revealed that music learners attached higher values not only to music but also to art and science than non-music learners. Music learners also expressed significantly higher competence beliefs for music and art than non-music learners, and expressed significantly lower perceptions of difficulty for music, art and science than non-music learners (see Table 1, adj. $p < .01$ for respective pair-wise comparisons).

Interest in school music. Trends for interest in each school subject (School Subject \times School Level; mixed-design ANOVA) show an overall developmental decrease in interest, $F(2, 2053) = 118.11, p < .01$. While interest for PE, mathematics and art decreased significantly from school

Table 1. Differences between music learners and non-music learners in perceptions of task values, competence beliefs, and task difficulty for each school subject

	Task values			Competence beliefs			Task difficulty		
	Learning music?			Learning music?			Learning music?		
	Yes	No	Adj. p	Yes	No	Adj. p	Yes	No	Adj. p
Music	3.53	2.47	<.01	3.84	3.05	<.01	1.78	2.43	<.01
Visual arts	2.94	2.57	<.01	3.42	3.22	<.01	2.13	2.31	<.01
PE	3.72	3.65	0.12	3.81	3.83	0.65	1.86	1.87	0.79
Science	3.43	3.28	<.01	3.58	3.52	0.19	2.21	2.36	<.01
Hebrew/English	4.12	4.10	0.62	3.82	3.79	0.55	2.07	2.19	0.02
Mathematics	4.09	4.10	0.89	3.86	3.87	0.96	2.16	2.23	0.20

level 1 to school level 3 (adj. $p < .01$), interest in music, mother tongue and science did not differ significantly across school levels (adj. $p = .29$). Still, students' interest in music was among the lowest of all subjects in all three school levels (see Figure 3(a)).

Trends for interest in school music between music learners and non-music learners suggest a significant School Level \times Learn Music interaction, $F(2, 2004) = 12.12$, $p < .01$. Non-music learners' interest in music decreased significantly from level 1 to level 3 (see Figure 3(b)). However, music learners' interest in school music increased slightly over the span of school levels (although not statistically significant across school levels, adj. $p > .01$). This finding is meaningful when compared to the overall decrease in interest in all of the other subjects over time.

Interest in music outside of school. Despite the overall low interest in music in school, students expressed higher levels of interest in music outside of school. While music was ranked as the third most interesting subject in level 1, it was ranked second in levels 2 and 3, only below PE (School Subject \times School Level model, see Figure 3(c)). Similar to interest in music in school, interest in music outside of school did not differ significantly over the span of school levels.

A comparison between music learners and non-music learners (School Level \times Learn Music) showed a significant general effect of learning music, $F(1, 2005) = 179.68$, $p < .01$, revealing that music learners expressed higher interest in music outside of school than non-music learners, as it was expected. However, this trend did not differ significantly across school levels (see Figure 3(d)).

Discussion

The above results highlight some distinctive features of school music in Israel, especially regarding the relationships between a specialized upper level music programme and the differences in beliefs and values of music learners and non-music learners. These issues are discussed below, with particular attention given to (a) developmental changes in task difficulty perceptions; and (b) the influence of music learning upon student expectancies, values and interest in music.

Task difficulty

Statistical findings revealed a significant increase in task difficulty scores over the span of school levels, with music perceived to be one of the easiest subjects in school level 1 (second only to PE), and one of the most difficult subjects (along with art and science) in school level 3. This rise in reported task difficulty for music is unique in comparison to findings for the other seven countries, and may therefore reflect the specialized nature of music study in Israel's upper level schools: whereas primary school music education is geared toward providing recreational and enrichment experiences for the majority of the student population, high school music education serves a relatively small number of students through rigorous academic coursework and matriculation examinations. Student perceptions of task difficulty between levels 1 and 3 reflect this difference in educational approach at the two levels.

The finding that music learners perceived music to be less difficult than did their non-music learning peers is similar to that of other countries and is not surprising, since individuals tend to elect and persist in activities for which they feel competent (see Bandura, 1997; Eccles et al.,

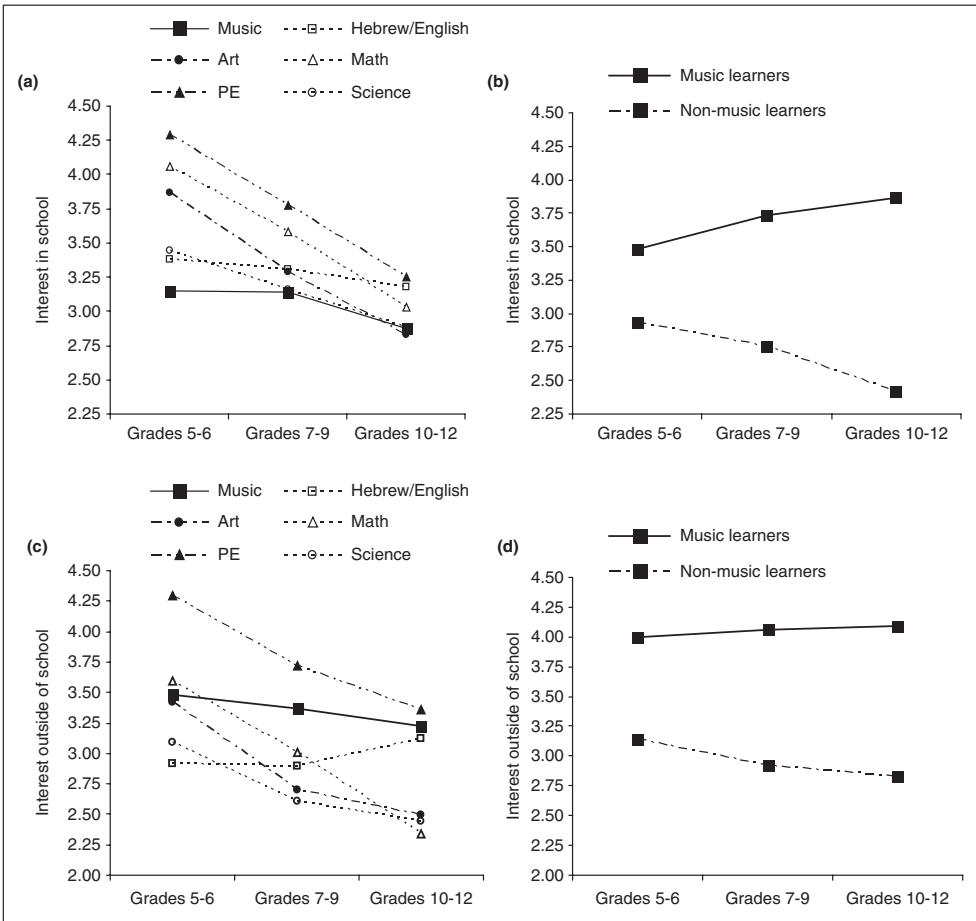


Figure 3. (a) Perceptions of interest in school music as compared to other school subjects and (b) difference in music interest in school between music learners and non-music learners. (c) Perceptions of interest in music outside of school as compared to other school subjects and (d) difference in music interest outside of school between music learners and non-music learners

1983; Eccles et al., 1998), and prior task-related achievement also leads to a higher sense of competence (see Bandura, 1997). Of note, however, is that music learners in Israel also found art and science to be less difficult than did non-music learners. These findings may be beneficial to discussions regarding the value of music study by demonstrating a relationship between music learning and a positive perception of task difficulty in other subjects as well (i.e., art and science).

Music learning

One of the most meaningful findings for policy makers working in Israel is the sharp difference in attitudes and motivation to study music between those who learn music and those who do not. As shown in the results above, school music programmes serve less than a quarter of all

music-learning students, although more than half of non-music learning students reported a willingness to learn music if given the opportunity. The potential impact of music study is evident when considering music learners' higher motivational profiles in music as well as in art and science. Differences between music learners and non-music learners in expectancies, values and interest inside and outside of school are considered here in order to demonstrate the importance of providing music learning opportunities to a larger portion of students than is presently served through the Israeli school system.

Expectancies and values. Similar to other countries, statistics for Israel show a discrepancy between motivational profiles for music learners and non-music learners, with music learners reporting higher expectancies and values for music. Non-music learners in Israel reported lower values for music than any other country, however, and expectancies that were among the lowest for any country at school level 3. Similar to the task difficulty discussion above, these findings may reflect the specialized and exclusive nature of music study in Israeli upper level schools, where music study is geared for a high-level professional track that may not appear as important, useful or manageable to students with non-musical career trajectories.

Interest in school music. Statistical findings showing differences between music learners and non-music learners demonstrate the influence of music participation upon motivation to study school music in level 3. Music learners maintained an interest in school music from level 1 to level 3, while their non-music learning peers reported a decline in interest that was similar to the declining interest of all students in PE, mathematics and art. This suggests that those students who are involved in musical activity may be more likely to persevere in music study even when it will require rigorous coursework. This is especially important to consider in Israel, where no music lessons are given in school level 2. Without the opportunity for continued music learning in the middle of their educational experience, it is not surprising that so few students elect to study music in school later on.

Interest in music outside of school. The low interest in music in school stands in contrast to the high interest in music outside of school at all levels, suggesting that Israeli school music is not presently serving the majority of students, who are looking elsewhere to meet their musical needs and interests. Furthermore, comparison of trends across school levels suggests that musical endeavours outside of school do not show the same level of disparity between music learners and non-music learners in interest for school level 3. This supports the aforementioned position that the absence of coursework in school level 2, and the rigours of coursework in school level 3, may discourage non-music learners from participating in school music in their final years of study.

Conclusion

The high-quality, advanced nature of primary and high school music in Israel demonstrates a level of professionalism that is enviable both for its excellence as well as the equal status it shares with such subjects as science and mathematics. In Israel, high school music study is a serious subject taught by expert teachers, with a curriculum that covers a diverse academic array of musical topics and skills. At the same time, however, the relatively small number of Israeli students who participate in upper level school music stands in contrast to the vast population of students who elect to engage in musical activity outside of school, either through

popular media or in nationally recognized conservatories. Our research shows the large disparity of motivation for music between music learners and non-music learners in Israel, and specifically demonstrates how the school music system is not presently encouraging non-music learners to initiate music study.

Considering the above findings, along with the large percentage of non-music learners who reported a willingness to learn music if given the opportunity, we recommend that policy makers in Israel consider providing compulsory music education in level 1 and 2 for all students, and broaden the base of music lessons for students in level 3. As noted in the introduction, school principals tend to elect music study for students in the 1st through 4th grades, and a number of important and meaningful programmes are available for students at this level. This leads us to assert that music educators would be capable of providing similarly engaging activities for students in level 2, and thus enable children in the middle grades to continue to benefit from school music study.

By increasing the number of students who participate in school music, the educational system would be better able to take advantage of the many programmes that are currently sponsored by the Ministry of Education for elementary school children. Furthermore, opportunities for school music in school level 2 may lead to increased musical participation in school music in level 3, because music learners would likely be better prepared for rigorous coursework at this level if they continued in their musical studies without interruption. Compulsory music education at levels 1 and 2 could also maximize results in those music programmes that require years of student perseverance before yielding high results.

While professional-level lessons may be excellent for more advanced music students (especially those who intend to pursue a musical career), the Israeli system currently does not serve other individuals who might have interest in musical participation at a more basic level. School music in Israel might be more inviting and/or accessible to a larger number of students if the school system provided musical opportunities with varying difficulty levels and with a broader emphasis, geared towards engaging students who demonstrate an interest in learning more diverse musical styles.

In our research, music was among the lowest-ranked subjects for all students at all three school levels for in-school study, yet one of the highest-ranked subjects for participation outside of school. This suggests that music participation itself is not lacking in motivation or interest among students in Israel, but that the school system is not presently providing for the musical needs and interest of most of its youth. School music in Israel, while professional and demanding, is not reaching the majority of students in the same way that musical activity in popular culture does. Considering the ubiquitous and heterogeneous nature of music in Israeli society, along with students' reports of interest in music outside of school and the high motivational profiles of music learners in music as well as art and science, it may be prudent for policy makers to consider means whereby the school system can provide opportunities for a greater population of students to participate in music.

These recommendations are compatible with principles of music pedagogy outlined by the eminent music educator Leo Kestenberg (1882–1962), who emigrated from Prague to Israel in 1938. Kestenberg pioneered the vision of how music education was to be developed in the newly founded state. He served as the first general manager of the Israel Philharmonic orchestra and, in 1945, founded, in collaboration with Imanuel Amiran-Pugatschoff and Miriam Gross-Lewing, the Midrasha, a College for Music Education (Gruhn, 2004).

In his autobiography *Bewegte Zeiten* [Turbulent Times], Kestenberg (1961) advocated the need to intimately link high artistic-aesthetic standards with ideological-socialist ideals. As

such, Kestenbergs asserted that all students from kindergarten to the university level are entitled to a high-quality music education. A staunch believer in the extra-musical benefits of music education, Kestenbergs maintained that music education lead to an 'education toward humanity' or, as he formulated it in the last decade of his life, a 'shaping of human character ... with and through music' (Kestenbergs, 1961, p. 3, as quoted in International Leo Kestenbergs Society, 2008).

Music education advocates across the world have expended effort in demonstrating a number of benefits that music education can have for the lives of students. We add to those discussions our finding that Israeli music learners reported higher motivational profiles for music as well as some other subjects. In addition, we emphasize the interest students reported in music outside of school, as well as a willingness to learn music if given the opportunity, to suggest that a continuation of school level 2 music, and broader musical opportunities in level 3, would be met with appreciation and interest by Israeli youth.

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Notes

1. The statistics and numbers listed in this overview, unless documented differently, derive from a personal interview with Israel's National Supervisor of Music Education, Dr Yael Shai, Ministry of Education, conducted in February 2008.
2. School and grade levels considered in the study are: primary school (grades 5–6 only), middle school (grades 7–9) and high school (grades 10–12).

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