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Eighth-Grade
Findings from
the National
Assessment of
Educational
Progress

music

MUSIC

theatre

theatre

visual arts

visual arts

dance

dance

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NATIONAL CENTER FOR EDUCATION STATISTICS

The NAEP 1997 Arts Report Card

**Eighth-Grade Findings from the
National Assessment of Educational Progress**

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Executive Summary

The last several years have seen a growing resolve among educators and policymakers to assure the place of a solid arts education in the nation's schools. There are many reasons for this resolve, but certainly among the most important is the contribution the arts make to the quality of education. As stated in the *Improving America's Schools Act of 1994*, "The Congress finds that the arts are forms of understanding and ways of knowing that are fundamentally important to education."¹

For over 25 years, the National Assessment of Educational Progress (NAEP) has reported on the knowledge and skills of children in the United States. If policymakers, educators, and concerned citizens are to reform and improve the United States educational system to ensure that students receive a solid arts education, they need valid and reliable information about the arts skills and abilities of our nation's students. As the nation's only ongoing survey of students' educational progress, NAEP is an important resource for understanding what students know and can do. NAEP assessments have explored students' abilities in a range of subject areas, including reading, science, U.S. history, and mathematics. Based on assessment results, NAEP reports levels of student achievement and the instructional, institutional, and demographic variables associated with those levels of achievement.

In 1997, NAEP conducted a national assessment in the arts at

grade 8. The assessment included the areas of music, theatre, and visual arts. (Though an assessment was developed for dance, it was not implemented because a statistically suitable sample could not be located.) For each of these arts areas, this *Report Card* describes the achievement of eighth graders within the general population and in various subgroups. Taken with the information provided about instructional and institutional variables, this report gives readers a context for evaluating the status of students' learning in the arts.

Readers should note that this report is intended to be read with a CD-ROM. The CD features the complete text of the report, as well as many more examples of student responses to assessment exercises.

The NAEP Arts Education Assessment Framework

The arts assessment was designed to measure the content specifications described in the arts framework for the National Assessment of Educational Progress. The central principle underlying the arts framework is that dance, music, theatre, and visual arts are crucial components of a complete education. The arts have a unique capacity to integrate intellect, emotions, and physical skills in the creation of meaning. Further, (according to the framework), at its best, the teaching of the arts will emphasize Creating and Performing works of art as well as studying and analyzing

existing works. Thus, meaningful arts assessments should be built around three arts processes: Creating, Performing, and Responding.

- **Creating** refers to expressing ideas and feelings in the form of an original work of art, for example, a dance, a piece of music, a dramatic improvisation, or a sculpture.
- **Performing** refers to performing an existing work, a process that calls upon the interpretive or re-creative skills of the student.
- **Responding** refers to observing, describing, analyzing, and evaluating works of art.

In order to capture the processes of Creating, Performing, and Responding, the arts assessment exercises included the following:

- Authentic tasks that assessed students' knowledge and skills in Creating and Performing music and theatre, and Creating in visual arts. Among other activities, students were to sing, create music, create and perform dances, act in theatrical improvisations, and work with various media to create works of visual art. Students were also to evaluate their own work in written form.
- Constructed-response and multiple-choice questions that explored students' abilities to describe, analyze, interpret, and evaluate works of art in written form.

The Arts Assessment Student Samples

The NAEP 1997 Arts Assessment was conducted nationally at grade 8.² For music and visual arts, representative samples of public and nonpublic school students were assessed. A special sample was assessed for theatre.

The decision to assess a special sample of students for theatre was made based on the results of the 1995 NAEP field tests in all four arts at grades 4 and 8. Field test data indicated that small percentages of students were exposed to comprehensive theatre programs in the nation's schools. (Eleven percent of students that were part of the random sample taking the 1997 visual arts assessment had some exposure to theatre education.)

To ensure rich results about what students who have been exposed to theatre in school know and can do, the National Center for Education Statistics (NCES), the National Assessment Governing Board (NAGB), members of the arts community, and Educational Testing Service (ETS) decided that a "targeted" sample of students should take the theatre assessment. Schools offering at least 44 classroom hours of a theatre course per semester,

and offering courses including more than the history or literature of theatre, were identified. Students attending those schools who had accumulated 30 hours of theatre classes by the end of the 1996-97 school year were selected to take the theatre assessment.

In this *Report Card*, discussions of student performance on the theatre assessment refer to this special sample of students, not to the nationally representative sample of students who took the music and visual arts assessment.

Also based on the results of the 1995 arts field test, a decision was made to have a targeted sample of students take the dance assessment. (Results from the 1997 arts assessment indicate that 3 percent of students in the national random sample received dance instruction in school three or four times a week.) The NAEP staff responsible for drawing NAEP samples and obtaining participation worked with the arts community to set criteria for the dance student sample and then to locate schools offering comprehensive dance programs.³ However, after considerable effort, a sample suitable in size and national distribution could not be found.

So that readers will have a picture of the performance assessment in dance that was developed based on the arts framework, the dance exercises that were intended for administration to students are included in this *Report Card*. (Appendix A contains information on sample sizes and participation rates for the assessment.)

Student Achievement

In this report, student performance on the arts assessment is presented in several ways. Overall summaries of results for Creating, Performing, and Responding in terms of student- and school-reported background variables are featured. For theatre, student results are also discussed in terms of teacher-reported background variables.⁴

The overall summaries of results deal with Creating, Performing, and Responding separately. Responding results within music, theatre, and visual arts are grouped for summarization on three NAEP arts Responding scales, each of which ranges from 0 to 300. Average Responding scale score results are presented by demographic and "opportunity to learn" variables (such as frequency of arts instruction, arts

2 The arts assessment was administered at grade 8 only because, due to budget constraints, NAEP could not comprehensively assess the arts at all three grade levels. (This shortfall also affected other NAEP subjects, such as math and science.) The arts community was consulted widely and recommended that the assessment be administered at one grade, grade 8. In this way, a full assessment of the Arts Framework, with authentic Creating, Performing, and Responding exercises, could be administered in the different arts.

3 Students who would have taken the dance assessment attended schools that offered at least 17 classroom hours of a dance course per semester. These students would have to have been currently enrolled in dance classes, or would have to have taken dance coursework in the last year. Coursework needed to include more than dance in athletic contexts, for example, dancersize or dance team, and more than aesthetics or criticism.

4 A teacher questionnaire was administered only for the theatre assessment because of the special nature of the theatre sample. Students who took the music and visual arts assessments were a random national sample. These students attended schools where music and visual arts may be taught by itinerant teachers or part-time staff. By contrast, those who took the theatre assessment attended schools that featured theatre as a substantial part of the curricula. This increased the chance of teacher response to the questionnaire.

facilities, and classroom activities in the arts) based on student-, school-, and, in the case of theatre, teacher-reported background information. Creating and Performing results are not summarized using a standard NAEP scale. Instead of a scale, Creating and Performing results are presented as average percents of the maximum possible score on exercises, in relation to demographic and opportunity-to-learn variables. (These average scores represent the overall mean percentage students earned of the possible number of points for the components of Creating and Performing tasks.)

Major Findings in Music, Theatre, and Visual Arts for the Nation

Music

- *Responding.* Most students could select appropriate functional uses for different types of music and could partially justify their choices in writing. For example, 79 percent of students could identify an excerpt from Brahms' "Lullaby" as being suitable for putting a child to sleep and could provide some justification for their choice.
- *Responding.* Students showed some skills in critiquing simple music performances. For example, 45 percent of students were able to identify and describe two errors, and 16 percent of students were able to identify and describe three errors in a performance of "Michael Row the Boat Ashore."

- *Creating.* Students showed limited abilities in creating music. When asked to create a rhythmic embellishment based on the first two phrases of "Ode to Joy," 24 percent of students were able to perform music that was scored "Adequate" or above in overall appeal and interest.
- *Performing.* Students' singing abilities across various aspects of musical performance were mixed. When singing the song "America" with a taped accompaniment, 78 percent of students were able to sing the rhythms of the melody with generally acceptable rhythmic ensemble and accuracy. In contrast, 35 percent of the students sang almost all of the pitches of the melody accurately, and 24 percent sang with a tone quality considered appropriate in most sections of the music.

Theatre

- *Responding.* More students could describe feelings conveyed by actors in dramatic performances, or what actors did with their faces, voices, or bodies, than could explain how actors used their faces, voices, and bodies to convey character and feeling. For example, 41 percent of students could describe the voice used by an actor in a radio play. Fourteen percent were able to describe ways the actor's voice conveyed his character.
- *Responding.* Students showed some knowledge of the technical elements of theatre. Sixty-five percent of students could offer

- reasonably accurate plans for how to create lighting effects for a scene in a Carson McCullers play. Fifty percent were able to draw ground plans for a set of that scene that showed some understanding of a theatre space. Seventeen percent of students were able to draw complete and essentially error-free ground plans.
- *Creating/Performing.* Students' abilities to combine dialogue, action, and expression to communicate meaning to an audience varied across Creating/Performing tasks. Sixty-seven percent of students demonstrated this ability most of the time in an improvisational task, and 2 percent did all the time. In a cold reading of a script, 30 percent of students demonstrated the ability to convey meaning (if only generally) most of the time, and 6 percent did all the time.

Visual Arts

- *Responding.* Some students were able to accurately describe some aspects of artworks. For example, 29 percent of students could describe three ways Raphael created a sense of near and far in a Madonna and Child painting.
- *Responding.* Students' abilities to place artworks in historical or cultural contexts varied. For example, 55 percent of students could identify which of four works was a work of contemporary Western art, and 25 percent could identify which of four works contributed to Cubism.

- *Responding.* Generally, linking aesthetic features of artworks explicitly with meaning seemed challenging for students. Four percent of students could write a brief essay linking a full analysis of technical aspects of a Schiele self-portrait to an interpretation, while 24 percent were able either to link sparser technical analyses to interpretations or to analyze technical aspects without an interpretation.
- *Creating.* Students showed some ability to create specific, fully observed, and expressive two-dimensional artworks. One percent of students created expressive collages that showed a consistent awareness of qualities such as color, texture, and contrast. However, 42 percent were able to effectively use collage techniques in parts of their collages.
- *Creating.* Students seemed to find applying their knowledge and skills to three-dimensional tasks challenging. For example, 3 percent of students were able to create freestanding sculptures out of plasticine and wire that skillfully combined shapes, details, and textures into an imaginative interpretation of kitchen utensils. Many more students (21 percent) created sculptures that were not freestanding, or showed some ability to realize an idea in an inventive, organized interpretation.

Major Findings for Students and Arts Learning in the Nation's Schools

- A large percentage of grade 8 students attended schools in which music and visual arts were taught, in most cases by full-time or part-time specialists. Student access to theatre and dance instruction was more limited.
- Most students attended schools in which instruction following district or state curricula was offered in the subjects of music and visual arts, but not in theatre or dance.
- Most visual arts and music instruction took place in school facilities dedicated to that subject. Where available, dance was usually taught in gymnasiums. Where available, theatre instruction usually took place on a stage or in a room dedicated to theatre teaching.

Major Creating, Performing, and Responding Findings for Student Subgroups

- In the NAEP arts assessment, females consistently outperformed their male peers.
- White and (where sample sizes were large enough) Asian students had higher average scores in Creating, Performing, and Responding than did Black or Hispanic students in some instances. However, music Creating scores of Black and White students were comparable,

as were music Creating and Performing scores among Black, Hispanic, and Asian students.

- Consistent with past NAEP assessments, higher levels of parental education were associated with higher levels of student performance in the arts assessment.⁵

Cautions in Interpretations

The reader is cautioned against interpreting the relationships among subgroup averages or percentages as causal relationships. Average performance differences between two groups of students may result in part from socioeconomic and other factors. For example, differences among racial/ethnic subgroups are almost certainly associated with a broad range of socioeconomic and educational factors not discussed in this report.

Additionally, readers should avoid making comparisons in scores across arts areas. The scales in each subject are independent, and the same score in two arts areas may not mean the same things in terms of student achievement.

Finally, readers should note that NAEP administered assessments in music and visual arts in 1974 and 1978. However, the assessment results for 1997 examined in this report are not comparable with the results from the earlier assessments, because of considerable changes in the nature of the 1997 assessment, based on the recently created *Arts Education Assessment Framework*.

⁵ Note that the student samples for music and visual arts differed from the theatre sample. While students who took the music and visual arts assessments were a random national sample, those that took the theatre assessment were selected from students who had some theatre education.

A Note About the Field Test Process Report

There is much to be learned from the process of developing, administering, and scoring an innovative performance assessment in the arts intended for a national sample. This information could not be accommodated in this *Report Card*. In order to share this information with the public, NAEP will be creating a report detailing the creation, administration, and scoring of the 1995 and 1997 arts field tests. (In 1995, NAEP field tested dance, music, theatre, and visual arts at grades 4 and 8. In 1997, NAEP field tested those four subjects at grade 12.) The forthcoming *1995 and 1997 Arts Field Test Process Report* will also include examples of exercises and student work. This will enable readers curious about measuring student performance at grades 4 and 12 and about measuring performance in dance to learn about the methods used in those field tests.⁶

⁶ Additionally, most items created for both the 1995 and 1997 arts field tests and the grade 8 arts assessment will be released for public use in 1999. Teachers, students, and other members of the general public will have computer Web access to assessment exercises, scoring guides, and sample responses. However, dance videos, music audio, artworks, and theatre performances used as stimuli for exercises may not be available on the Web, due to copyright restrictions.

Chapter One



Chapter One

The NAEP 1997 Assessment in the Arts

When we teach a child to sing or play an instrument, we teach her to listen. When we teach a child to draw, we teach her to see. When we teach a child to dance, we teach him about body and about space. When we teach a child design, we teach the geometry of the world.

*- Jane Alexander
Former Chair, National Endowment for the Arts*

Introduction

The last several years have seen a growing resolve among educators and policymakers to assure the place of a solid arts education in the nation's schools. There are many reasons for this resolve, but certainly among the most important is the contribution the arts make to the quality of education. As stated in the *Improving America's Schools Act of 1994*, "The Congress finds that the arts are forms of understanding and ways of knowing that are fundamentally important to education."¹ What are these ways of understanding and knowing? They are eloquently expressed in the words of Jane Alexander quoted above. As a means of encountering the world around us, the arts offer a unique combination of intellectual, emotional, imaginative, and physical experiences. Musical sounds, the gestures of a dancing body, colors in a painting, the emotion visible on the face of an actor: all of these

are alternative languages. They are opportunities for capturing ideas and feelings, for communicating, for learning, that move well beyond words.

The arts as a means of expression are especially important in the context of current educational reform that emphasizes "multiple intelligences."² Children learn in many different ways. The range of artistic experiences offers visual, kinetic, aural, and spatial means of teaching and learning. The arts' capacity to reach many kinds of students may account for evidence that arts learning improves student performance in diverse subjects.³

According to a study performed at the University of California at Irvine, early education in classical keyboard increased students' aptitude for math and science.⁴ College Board data indicate that students who have engaged in sequential arts programs perform significantly better on both the verbal and math components of the

SAT than their peers who have not.⁵

Until further study can explain with precision how arts improve student learning, it is worth considering that, in the words of one artist, "the study of art is a means of personal expression that is important to well-being."⁶ Learning to use different senses, make choices, benefit from mistakes, work with others, and to be imaginative, mentally flexible, and playful are important educational experiences that translate into skills indispensable in a rapidly changing world. Workplaces are likely to demand increasing abilities to solve problems, generate new ideas, and make independent choices. The arts encourage these skills. Another dimension of change is the increasing connectedness among peoples and cultures. Learning about artistic expressions from all over the world is an important means of introducing young people to the diversity and shared experiences of humanity.

1 *Improving America's Schools Act of 1994*. H.R. 6, 103rd Cong., 2nd Sess. (1994).

2 Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.

3 Kane, E. and Frankonis, E.. (1998, May). Arts education in the new millennium. *Education New York*, 2(5), 3.

4 Ibid.

5 Childress, J. (1998, May). Art education pays off. *Education New York*, 2(5), 5.

6 EDNY interviews artist Sylvia Plimack Mangold [Q and A]. (1998, May). *Education New York*, 2(5), 14.

NAEP's Mission

The National Assessment of Educational Progress (NAEP) is the only nationally representative and continuing assessment of what students in the United States know and can do in various subjects. NAEP is authorized by Congress and directed by the National Center for Education Statistics (NCES) of the U.S. Department of Education. The National Assessment Governing Board (NAGB), an independent body, provides policy direction for NAEP.

Since its inception in 1969, NAEP's mission has been to collect, analyze, and produce valid and reliable information about the performance of students in the United States in various subject areas. NAEP has become a valuable tool in tracking progress toward the National Education Goals.

The purpose of this report is to inform educators, policymakers, and the public about student achievement in the arts.

Readers should be aware that NAEP administered assessments in music and visual arts in 1974 and 1978. The assessment results for 1997 examined in this report are not comparable with the results from the earlier assessments because of considerable changes in the nature of the 1997 assessment, based on the recently created *Arts Education Assessment Framework*.

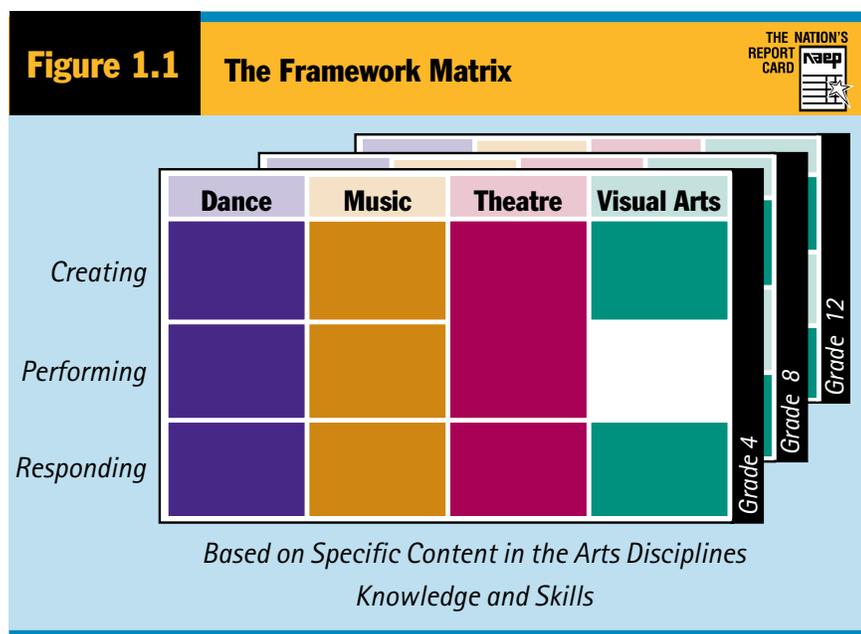
The NAEP Arts Education Assessment Framework

The 1997 arts assessment was designed according to specifications described in the NAEP *Arts Education Assessment Framework*. The framework was developed between 1992 and 1994 through a consensus process involving arts educators, artists, policymakers, representatives from the business community, assessment specialists, and members of the public. The project was managed by the Council of Chief State School Officers under the auspices of NAGB.

The central principles underlying the arts framework are that a complete and rich arts education is a crucial part of the curriculum, and that such an education must emphasize creating and performing as much as studying and analyzing works of art. Thus, mirroring a solid arts education, a strong arts assessment should be built around the three arts processes of Creating, Performing, and Responding.

Figure 1.1 illustrates the framework's vision of how Creating, Performing, and Responding are parts of arts education and assessment. In dance and music, the processes of Creating, Performing, and Responding are all emphasized, although music educators have typically placed greater emphasis on performance of existing works and students' responses to performances. In theatre, Creating and Performing are understood as a combined act, and the responses of the audience, director, actors, and designers are seen as important components of the development of Creating/Performing work. In visual arts, creative expression and responses to artworks are more highly valued than the performance, or duplication, of existing works.

The figure also expresses the idea that in dance, music, theatre, and visual arts, students' arts knowledge and skills apply in equally important ways to the processes of Creating, Performing, and Responding.



Although the matrix applies to grades 4, 8, and 12, only grade 8 was administered as an assessment.

Table 1.1 below gives a further visual representation of how both knowledge and skills are important for the processes of Creating, Performing, and Responding. Table 1.1 describes the two major components of arts learning according to the assessment framework. Students should gain (1) knowledge and understanding about the arts, including the personal, social, cultural, and historical contexts for works, and (2) perceptual, intellectual/reflective, expressive, and technical skills. Both of these components are found in dance, music, theatre, and visual arts.

As represented in the left-hand column of the table, when students engage in Creating, Performing, and Responding, they draw upon many kinds of knowledge and understanding about the arts in order to create meaning. Students need to be able to place the arts in broader contexts to appreciate their significance. For example, a student studying a

collage by Romare Bearden would benefit from some understanding of African American history. A personal perspective, a knowledge of how the arts fit into the students' immediate society and broader culture, and an historical perspective are all important elements of arts learning.

Students also need knowledge of aesthetics to understand the varied ideas about the nature, meaning, and value of the arts held by peoples from many cultures and historical periods. When creating a dance composition based on an abstract idea like metamorphosis, for example, a grasp of how contemporary choreographers experiment with elements like space and movement would be helpful for students.

Finally, students need to know and understand the different forms of artistic expression and the technical processes by which these forms can be created. For example,

when creating the effect of a thunderstorm on stage for a play by Carson McCullers, students would need to know how to use sound and lighting effects to communicate the storm to an audience.

The acquiring and application of skills determine the quality of Creating, Performing, and Responding in the arts (see the right-hand column of the table). Perceptual skills are needed to collect sensory stimuli and to discern subtleties. For example, musicians must be able to hear pitches and rhythms to be able to perform correctly. Intellectual/Reflective skills are needed to test different creative possibilities, solve artistic problems, refine work, and deepen artistic experience and thought. Expressive skills are needed to add a unique and personal nature to works of art: a Bach keyboard suite played without expression would fail to move an audience. Technical skills are needed to produce works of quality. Without an ability to manipulate materials correctly, an artist would not be able to create a sculpture that stands upright.

Of great importance to the creators of the assessment framework is the idea that throughout the processes of Creating, Performing, and Responding, students utilize and apply knowledge and skills simultaneously. Knowledge and skills rarely function in isolation. It is difficult to master an artistic skill in the absence of relevant knowledge. Similarly, students use their

Table 1.1

Knowledge and Skills Based On Specific Content from Dance, Music, Theatre, and Visual Arts



Knowledge of Creating, Performing, Responding

Applying Knowledge of:

Context:

- personal
- social
- cultural
- historical

Aesthetics

Form and Structure

Processes

Skills in Creating, Performing, Responding

Applying Cognitive, Affective, and Motor Skills Including:

Perceptual

Intellectual/Reflective

Expressive

Technical

knowledge of aesthetics and history as they Create, Perform, or Respond. Often, more knowledge is gained as students actively engage in artistic processes.

In order to measure the application of knowledge and skills to Creating, Performing, and Responding, the framework called for the arts assessment to include the following kinds of exercises:

- Authentic tasks that assess students' knowledge and skills in Creating and Performing music and theatre and in Creating in visual arts. Among other activities, students were to sing, create music, create and perform dances, act in theatrical improvisations, and work with various media to create works of visual art. Students were also to evaluate their own work in written form.
- Constructed-response (questions that require students to create a response in written or other form) and multiple-choice questions that explore students' abilities to apply knowledge and skills in Responding to works of art. These questions asked students to analyze, describe, and identify important qualities of works.

Developing exercises to meet the requirements of the arts framework posed interesting challenges. In educational settings, students and

teachers of the arts can discuss the range of choices available to students to communicate meaning, and students can work on their projects over time. This is not the case in a timed assessment. To give students as much of an opportunity as possible to demonstrate their arts knowledge and skills, it was necessary to create contexts for the assessment exercises. This was done in two important ways. First, while taking care not to "overteach" students, and hence damage assessment results, instructions for Creating, Performing, and Responding tasks were carefully crafted to lead students through complex exercises step by step, and to give students as much information as possible about what knowledge and skills they were being asked to demonstrate. In this way, the arts assessment avoided asking students to Create, Perform, or Respond in a conceptual vacuum. Second, as much as possible, exercises were built around a theme or particular work of art, so that students could focus on just a single work or issue. This gave students the opportunity to think more deeply about the assessment tasks, and ensured that students were not asked isolated questions about unrelated works of art.

The Assessment Design

Independent sets of exercises were developed for each discipline that

was assessed: music, theatre, and visual arts.⁷ Within each art, there were four "blocks" (groups of exercises administered as separate units to be completed in a set time frame) of written Responding exercises, and three Creating and/or Performing blocks. (In theatre, Creating and Performing constitute one category, and visual arts do not include the process of Performing.) The music assessment also featured two additional Creating/Performing blocks designed for students who indicated that they were currently involved in some musical activity.

Each student who participated in the assessment was assessed in one of the three arts, to ensure that sufficiently in-depth information about students' arts abilities was gathered. In the first portion of the assessment, each student received one booklet containing two blocks of cognitive Responding exercises and three blocks of background questions. The cognitive blocks included multiple-choice questions and two types of constructed-response questions: short constructed-response questions that required students to write answers of a few words or sentences, and extended constructed-response questions that required students to provide answers of a paragraph or more. (In visual arts, three of the Responding blocks included two-dimensional Creating tasks.) Answers to the constructed-response questions

⁷ As noted in the Executive Summary of this report, an attempt was made to find a sample of students attending schools that have a solid dance curriculum for participation in the grade 8 dance assessment. Since dance is usually not part of schools' curricula, a sample of a statistically suitable size could not be found. Therefore, NAEP did not assess grade 8 students in dance.

were evaluated using multi-level scoring guides that defined criteria for full credit, partial credit, or no credit. The background questions asked students to provide information about their demographic characteristics, arts classroom instruction, and self-perceptions about their abilities in the art form in which they were being assessed.

In the second portion of the assessment, each student completed one Creating and/or Performing block. (Again, the exception is music. Students who were currently engaged in some type of musical activity took two Creating and/or Performing blocks, one for the general student sample and one for students with special music knowledge.) No background questions were asked during this part of the assessment.

Separating the more active portions of the assessment allowed for a suitable amount of time to be devoted to these complex tasks. It also allowed for numerous special conditions that had to be met to successfully administer Creating and/or Performing tasks. Among these were the need to have students work in pairs or groups for theatre improvisations; the need to videotape students acting; the need to set up instruments and recording devices for music tasks; the complications associated with distributing large amounts of visual arts materials; the time needed to photograph three-dimensional visual art works for future scoring; and in general,

special space requirements for all three arts.

Taken together, the Responding, Creating, and Performing portions of the assessment, and the background questionnaires, make it possible to analyze and compare the performances of various subgroups of students. A more extensive discussion of the content of the assessment and of the various student, (theatre) teacher, and school questionnaires is presented in Appendix A.

The Arts Assessment Student Samples

The NAEP 1997 arts assessment was conducted nationally at grade 8.⁸ For music and visual arts, representative samples of public and nonpublic school students were assessed.

The theatre sample was a "targeted" sample. Schools offering at least 44 classroom hours of a theatre course per semester, and offering courses including more than the history or literature of theatre, were identified. Students attending these schools who had accumulated 30 hours of theatre classes by the end of the 1996–97 school year were selected to take the theatre assessment. The sample of nonpublic schools for theatre was not large enough to permit the separate reporting of nonpublic school results for this discipline. (Appendix A contains information

on sample sizes and participation rates for the assessment.)

Evaluating Students' Work in the Arts

One of the greatest challenges of the arts assessment was scoring student works of art. While the arts have a long tradition of judging student works, a national assessment posed new difficulties. Among these were how to apply precise criteria to student works that demonstrated a wide range of abilities. Another was how to train large numbers of raters to apply these criteria appropriately in scoring.

Both challenges were largely met by hiring experienced teachers in each of the arts to train raters to apply suitable criteria. In the case of theatre, methods were borrowed from actual educational practice; teams of two or three raters discussed student performances before assigning scores.

A fuller description of scoring methods is included in Appendix A. Greater detail about how those methods were developed and applied will be featured in the forthcoming *1995 and 1997 Arts Field Test Process Report*. For the purposes of this *Report Card*, readers are asked to keep in mind the inevitable diversity of views involved in scoring student works of art as they encounter decisions made by raters during the course of the assessment scoring.

⁸ The arts assessment was administered at grade 8 only because, due to budget constraints, NAEP could not comprehensively assess the arts at all three grade levels. (This shortfall also affected other NAEP subjects, such as math and science.) The arts community was consulted widely and recommended that the assessment be administered at one grade, grade 8. In this way, a full assessment of the Arts Framework, with authentic Creating, Performing, and Responding exercises, could be administered in the different arts.

Reporting NAEP Arts Results

Student performance on the arts assessment is presented in several ways in this report. Overall summaries of Creating, Performing, and Responding results and their relationships to student- and school-reported background variables are featured. For theatre, relationships between student results and teacher-reported background variables are also presented.⁹

Results for Creating, Performing, and Responding are summarized separately in each arts area because at least some students may be stronger in one process than another.¹⁰ As stated earlier, while the knowledge and skills students draw upon to Respond to, Perform, and Create works of art do overlap and inform one another, it is plausible that some students will create or perform but not respond well, and vice versa.

Responding results within music, theatre, and visual arts are grouped for summarization on three NAEP arts Responding scales, each of which ranges from 0 to 300. Creating and Performing results are not summarized on a standard NAEP scale. To scale assessment results, there must be a sufficient number of students taking a given group of exercises,

and a sufficient number of exercises to be scaled of a given type. This was not the case for the Creating and Performing exercises in any of the three arts assessed. Although they consumed far more assessment time than written exercises, there were fewer exercises to group together into a scale. Moreover, given the complex administrative procedures associated with these tasks (such as videotaping responses, distributing arts materials, and having students work in groups), each student took only one such task.¹¹ This prohibited the use of the kind of scaling methodology used to summarize Responding results. Instead of a scale, Creating and Performing results are presented in terms of an average percent of the maximum possible score.

Finally, the arts assessment results are not able to be reported in terms of the NAEP achievement levels (basic, proficient, and advanced). The complex, diverse nature of the assessment tasks in each arts discipline resulted in different scales for Creating, Performing, and Responding. Therefore, results could not be summarized for each arts discipline for the purpose of setting achievement levels.

Interpreting NAEP Results

This report examines and compares the arts performance of groups of

students defined by demographic characteristics (e.g., males compared to females) or by responses to background questionnaires regarding experience in a given arts area. It does not explore the relationships among combinations of these groups (e.g., White males compared to Black males). Appendix A presents detailed descriptions of the reporting subgroups.

The averages and percentages presented in the report are estimates because they are based on samples rather than on all members of each population. Consequently, the results are subject to a measure of uncertainty, reflected in the standard errors of the estimates. The comparisons made in the report are based on statistical tests that consider the magnitude of the differences between the group averages or percentages and the standard errors of those statistics. Throughout this report, differences among reporting groups are defined as "significant" when they are significant from a statistical perspective. The discussion of a difference as statistically significant means that observed differences in the sample are likely to reflect real differences in the population and are highly unlikely to have resulted from chance factors associated with sampling variability.¹² The term "significant," therefore, is not intended to imply a

⁹ A teacher questionnaire was used only for theatre, because the special targeted nature of the theatre sample considerably increased the chances of getting responses from theatre teachers.

¹⁰ Furthermore, a measurement requirement for summarizing student responses to different exercises together is that those exercises measure the same or similar knowledge and skills. The range of arts knowledge and skills is very wide. Knowledge and skills are also related in subtle and various ways in their applications to Creating, Performing, and Responding. These factors diminish the possibility that the three processes, in strict measurement terms, utilize knowledge and skills in ways similar enough to be summarized on a single scale. However, overall Creating, Performing, and Responding results are presented side by side wherever possible.

¹¹ A small proportion of students currently involved in some type of musical activity at the time of the assessment received two music Creating and/or Performing tasks.

¹² All differences reported are statistically significant at the .05 level with appropriate adjustments for multiple comparisons.

judgment about the educational relevance of the differences. It is, rather, intended to identify statistically dependable population differences to help focus subsequent discussion among policymakers, educators, and the public.

This report also contains appendices that support or supplement the results presented. Appendix A contains an overview of the NAEP arts framework and specifications, information about assessment design, scoring, and the sample, and a detailed description of the major reporting subgroups featured in Chapter 6. Appendix B presents the standard errors for the tables presented in this report.

Cautions in Interpretations

The reader is cautioned against interpreting the relationships among subgroup averages or percentages as causal relationships. Average performance differences between two groups of students may result in part from socioeconomic and other factors. For example, differences among racial/ethnic subgroups are almost certainly associated with a broad range of socioeconomic and educational factors not discussed in this report. Similarly, differences in performance between public and nonpublic school students may be better understood by accounting for other factors such as the composition of the student body, parents' education levels, and parental involvement.

Additionally, readers should avoid making comparisons in scores across arts areas. The assessment exercises and performance tasks in each area were independently developed. No explicit efforts were undertaken to match the difficulty level or scope of coverage of the assessments across the different arts areas. Furthermore, the scales in each content area are independently derived, and the same score in two areas may not represent the same level of student achievement. Consequently, comparisons of average scores across content areas are not inherently meaningful.

About This Report

This *Report Card* is organized as follows. This chapter, Chapter 1, presents the overview of the NAEP 1997 Arts Assessment: its content framework, design, student sample, administration, and scoring. Chapter 2 presents an in-depth look at the music component of the assessment. Assessment questions and student responses are examined, as are average student results for Creating, Performing, and Responding. Chapters 3 and 4 do the same for theatre and visual arts, respectively (visual arts does not include the process of Performing). Chapter 5 features the dance exercises intended for the grade 8 dance assessment.¹³ Chapter 6 presents average results in music, theatre, and visual arts for the nation and subgroups of students. Finally, Chapter 7 describes contextual factors related to students' arts achievement, such as frequency of arts instruction and school arts facilities.

Readers should note that this report is intended to be read with a CD-ROM. The CD features the complete text of the report, as well as many more examples of student responses to assessment exercises.

¹³ Due to an insufficient number of schools with comprehensive dance programs, this portion of the assessment did not take place. The exercises are included to provide a picture of the authentic performance assessment developed for dance. For samples of student responses to dance field test exercises, see the forthcoming *1995 and 1997 Arts Field Test Process Report*.

Chapter Two

music

MUSIC



Chapter Two

MUSIC Creating, Performing, and Responding in Music: A Close Look at the NAEP 1997 Music Assessment

The Content of the Music Assessment

School music programs have had a long history in American public schools. From humble beginnings, music education in the United States has grown in districts throughout the nation to reflect a wide diversity of course offerings, methodologies, and approaches to instruction. With the passage of the *National Goals 2000: Educate America Act*,¹ music, along with the other arts, has taken its place as a core subject to be taught and assessed in the nation's schools. An important part of this legislation included provisions for establishing voluntary national educational standards in the arts that were "internationally competitive," "[reflected] the best knowledge about teaching and learning," and



were developed using a "broad-based, open adoption process."²

Through an extensive development and consensus-building process involving appropriate representation from arts agencies, arts educators, government, and the general public, the voluntary *National Standards for Arts Education* were subsequently created.³ The purpose of the *Standards* is to provide explicit detail about what American students should know and be able to do in the arts, including music. Embedded in the *Standards* for music is the idea that all students should demonstrate mastery of core knowledge and abilities in music, regardless of the mode of instruction in the music classroom. The *Standards*, while designed as voluntary guidelines, have proved to be a valuable reference for music educators who develop and revise curricula and set standards at the state and district levels.

Just as music curricula and standards throughout the nation

continue to be re-examined and refined, so have assessment practices in music and the other arts. Among education researchers, there has been an increased call for "authentic assessment" exercises that more closely reflect experiences that students have as they learn and engage in classroom activities in various school subjects.⁴ Developers of the *Framework* for the NAEP music assessment adopted the philosophy of authentic assessment to describe how students' skills in music should be measured and evaluated. Specifically, they defined what students should be asked to do in order to demonstrate their abilities to create, perform, and respond to music. For example, the *Framework* specified that students should be asked both to generate written descriptions and responses to music, and to perform and create music to demonstrate their skills. Thus, the assessment placed far less emphasis on traditional multiple-choice questions than did previous generations of music assessments.

1 *National Goals 2000: Educate America Act* (1994). Pub. L. No. 102-227.

2 *National Standards for Arts Education* (1994). Reston, Virginia: Music Educators National Conference, 11.

3 *National Standards for Arts Education* (1994). Reston, Virginia: Music Educators National Conference.

4 Wiggins, G. P. (1993). *Assessing student performance*. San Francisco: Jossey-Bass.

Inherent in the vision of authentic assessment in music is the idea of asking students to evaluate the choices they make as they create and perform, just as musicians do when creating new works or when learning to perform new repertoire.

The NAEP 1997 arts assessment was designed in conjunction with the newly developed voluntary *National Standards for Arts Education*. The nine content standards for music articulated in the *Standards* document were grouped into three general themes in the *NAEP Framework: Creating* music (such as composing, improvising, and arranging activities), *Responding* to music (analyzing and evaluating music and performances, listening with understanding, and demonstrating knowledge of music in relation to the other arts and to history and culture), and *Performing* (singing or playing instruments).

Creating tasks gave the students the opportunity to create a rhythmic improvisation, create a harmonic improvisation, create an embellishment on a familiar tune, use the process of improvisation to create an original melody, and evaluate their work. In addition, some students currently participating in a musical activity were asked to create improvisations in jazz style. To demonstrate their *Performing* abilities, students were asked to play familiar tunes by ear on a MIDI keyboard and to sing a familiar tune with accompaniment. Additional

exercises conducted with some students enrolled in musical activities included sight-reading a short melody, practicing and performing an excerpt of a large ensemble piece for their instrument or voice, and evaluating their work. As a part of the assessment, some students enrolled in music activities were asked to bring and perform samples of music that they had learned in school or out of school. While *Responding* to music in the assessment, students analyzed and described aspects of music they heard, critiqued instrumental and vocal performances, demonstrated their facility with standard music notation, and demonstrated their knowledge of the role of music in society.

Creating the music assessment posed many challenges. Throughout the assessment it was necessary to strike a balance between the need to cover rigorous content outlines and the need to make tasks and questions accessible to students of all levels of ability and experience. Performing and Creating tasks needed to be administered with efficiencies of time, yet maintain the authenticity to the art form called for throughout the arts assessment. As is discussed in the *Framework*, music assessment exercises needed to be designed and selected with the knowledge that there is no "canon" of universally taught musical repertoire in our nation.⁵ Finally, music tasks and

assessment questions needed to cover broad content areas while using stimulus materials that reflected a diverse range of musical genres, styles, and performance mediums.

An overview of the grade 8 music assessment "blocks" (groups of exercises administered as separate units to be completed in a set time frame) is presented in Figure 2.1. As the detailed discussions of the different blocks later in this chapter will make clear, a wide variety of cultures, genres, and historical periods are represented by the works to which students were asked to respond. The first seven blocks described were administered to a random sample of students selected from the general student population. The final two blocks described were administered only to a subsample of students who indicated that they were currently involved in some type of musical activity in school or out of school.

5 National Assessment Governing Board. (1994). *Arts education assessment framework* (pre-publication ed.) Washington, DC: Author, 44. Available online at <http://www.nagb.org>

Figure 2.1**The Content Description of the NAEP Music Assessment**

Block Name		
"Shalom, My Friends" (Responding Block)	Students discussed features of an example of Japanese koto music. Students analyzed features of a choral arrangement of the song "Shalom, My Friends" and Scott Joplin's "Pine Apple Rag." Students contrasted stylistic elements present in excerpts of music from Brahms' First Symphony with two pieces by composer Ellen Taaffe Zwilich.	
"Musical Texture" (Responding Block)	Students analyzed textural elements of excerpts of music from a flute solo by Chaminade, a fugue by J.S. Bach, and a Native American flute solo. Students analyzed and compared two different versions of "Why Do the Nations So Furiously Rage?" (One version of the music was by G.F. Handel and the other was a jazz performance by Al Jarreau.) Students analyzed form and other features of an African dance song and a Japanese folk song.	
"Michael Row the Boat Ashore" (Responding Block)	Students demonstrated understanding of phrase structure, instrumentation, and melodic contour of a performance of the folk song "Au Clair de la Lune." Students answered questions dealing with standard melodic and rhythmic music notation. Students provided a critique of a vocal performance of "Michael Row the Boat Ashore." Students analyzed functional uses and stylistic features of excerpts from Sousa's "The Washington Post March," Brahms' "Lullaby," and the spiritual "Wade in the Water."	
"Minuet in G" (Responding Block)	Students provided a critique of a violin performance of "Minuet in G" by J.S. Bach, described features and answered questions about excerpts of string quartet music by George Crumb, "Rhapsody in Blue" by George Gershwin, and the W. Schuman arrangement of Charles Ives' "Variations on America."	
"The Lion Sleeps Tonight"/Twinkle, Twinkle, Little Star" (Creating and Performing Block)	Students improvised a rhythmic accompaniment and a harmonic accompaniment for an instrumental arrangement of the popular tune "The Lion Sleeps Tonight." Students performed the melody "Twinkle, Twinkle, Little Star" by ear on the MIDI keyboard.	
"Ode to Joy"/ Sing 'America'" (Creating and Performing Block)	Students performed the first two phrases of the melody "Ode to Joy" by ear on the MIDI keyboard. Students created a rhythmic embellishment based on the first two phrases of the tune "Ode to Joy." Students sang the melody to the song "America" ("My Country 'Tis of Thee") along with a full chorus accompaniment on audiotape.	
"Rock Improvisation and Evaluation" (Creating Block)	Students performed improvisations to a rock music background and created an original melody. Students sang a vocal improvisation with the rock background music. Students answered self-evaluation questions about their performances.	
"Jazz Improvisation and Melodic Sight-Reading" (Creating and Performing Block)	Students performed a solo of their choice. Students performed two brief jazz improvisations on their instrument or voice. Students sight-read an eight-measure melody on their instrument or voice.	
"Large Ensemble" (Performing Block)	Students performed a solo of their choice. Students performed an excerpt from a large ensemble piece along with a full ensemble accompaniment recorded on audiotape. Students listened to their performance and then answered self-evaluation questions about their singing or playing.	

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

Sample Responding and Creating/Performing Blocks and Exercises

In Parts 1 and 3 of this chapter, the different components of the music assessment are examined to show what students know and can do when they are asked to Create, Perform, and Respond in music. Figures 2.2–2.5 and 2.10–2.14 describe the questions and exercises administered to students. Each figure features either an entire music block or selected exercises from a block. The figures demonstrate how the exercises were organized and presented to students and describe how well students performed on the exercises. Many sample student responses are shown, in order to give a detailed picture of the range of student abilities encountered in the assessment. Percentages of students choosing each of the

various options for multiple-choice questions, or at the different levels for constructed-response questions or performing tasks, are also featured. In Part 1 of this chapter, sample Responding block questions and student responses are illustrated. Part 2 presents the Music Responding Scale and Item Map. In addition, Part 2 provides data showing the relationship between student proficiency in Music Responding and student background variables, and the relationships between student proficiency in Music Creating, Performing and Responding. Part 3 describes the Music Creating and Performing blocks and provides student responses to those exercises. Part 4 examines the relationships between student proficiency in Music Creating and Performing and selected student and school variables.



Part One

Sample Questions from the Music Responding Blocks

For each of the Responding blocks in the NAEP music assessment, trained test administrators played paced audiotapes that provided standardized directions and musical examples for test questions. The tapes allowed students appropriate time after hearing the music to answer each question. Each student completed two of the four Responding blocks. All of these blocks were administered to full classes of students. The total number of questions

in each block ranged from 8 to 16. The amount of time needed to administer the individual blocks of questions ranged from approximately 25 to 35 minutes.

Selected representative Responding block items and student responses follow. Almost all of the items in the block "Michael Row the Boat Ashore" (Figure 2.4) have been included in order to demonstrate the format and design of a typical Responding block.

Figure 2.2



Sample Questions and Student Responses from the "Shalom, My Friends" Block are found on the CD-ROM version of this report.



Figure 2.3



Sample Questions and Student Responses from the "Musical Texture" Block are found on the CD-ROM version of this report.



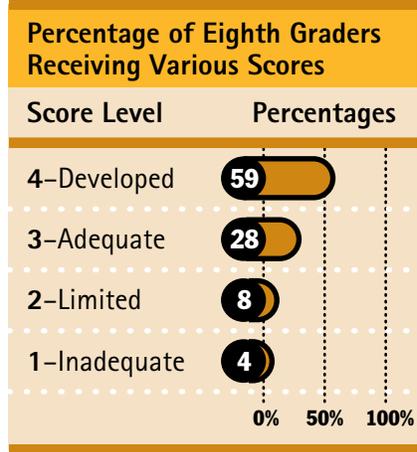
Figure 2.4

Sample Questions and Student Responses from the “Michael Row the Boat Ashore” Block (This figure can also be found on the CD-ROM version of this report.)



Sample Question 1

This short constructed-response question measures students' perception of form. Responses were scored with a four-level scoring guide that allowed for partial credit. The correct response is A-B-A. Inadequate responses failed to classify any phrases (short musical segments) correctly. Limited responses classified one phrase correctly. Adequate responses classified two phrases correctly. Developed responses classified three phrases correctly.



NOTE: Percentages do not sum to 100 due to rounding.

Sample Question 1

The first piece of music you will hear will be for questions 1 to 3. The music has four phrases. Listen to the first phrase of the music.

Audio Link to “Au Clair de la Lune,” first phrase, NAEP recording



Listen to the first phrase and the second phrase. If the second phrase is the same as the first phrase, mark the letter **A** in the space below. If the second phrase is different from the first phrase, mark the letter **B** in the space



Audio Link to “Au Clair de la Lune,” first two phrases, NAEP recording

(A)

(B)

Listen to the first phrase, the second phrase, and the third phrase. If the third phrase is the same as the first phrase, mark the letter **A** in the space below. If the third phrase is different from the first phrase, mark the letter **B** in the space



Audio Link to “Au Clair de la Lune,” first three phrases, NAEP recording

(A)

(B)

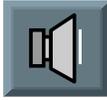
Listen to all four phrases. If the fourth phrase is the same as the first phrase, mark the letter **A** in the space below. If the fourth phrase is different from the first phrase, mark the letter **B** in the space



Audio Link to “Au Clair de la Lune,” entire melody, NAEP recording

(A)

(B)



Audio Link to "Au Clair de la Lune," entire melody, NAEP recording

Sample Question 2

This multiple-choice question measures students' abilities to identify a specific timbre (the characteristic sound produced by a particular voice or instrument). Responses were scored as either correct or incorrect. The correct answer is A.

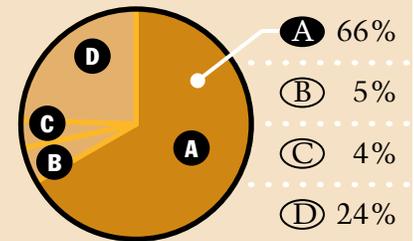
Sample Question 2

For question 2, you will hear the entire melody played again. The music will be played one time. Before you hear the music, read question 2.

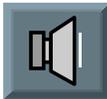
The music was played on a

- A saxophone
- B trombone
- C bassoon
- D clarinet

Percentage of Eighth Graders Answering Correctly: 66%



NOTE: Percentages do not sum to 100 due to rounding.



Audio Link to "Au Clair de la Lune," melodic fragment, NAEP recording

Sample Question 3

This multiple-choice question measures students' abilities to perceive melodic contour. (Melodic contour refers to the pattern in which the notes of a melody move up or down, or are repeated.) Responses were scored as either correct or incorrect. The correct answer is B.

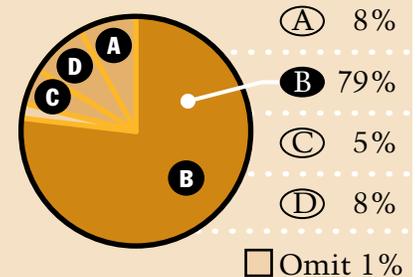
Sample Question 3

For question 3, you will hear one part of the melody played again. The music will be played one time. Before you hear the music, read question 3.

The part of the melody you heard moved in which kind of pattern?

- A Steps going up
- B Steps going down
- C Skips going up
- D Skips going down

Percentage of Eighth Graders Answering Correctly: 79%



NOTES: Percentages do not sum to 100 due to rounding.

The omit percentage reported includes student refusals, blank or multiple responses, and illegible or otherwise unscorable responses.



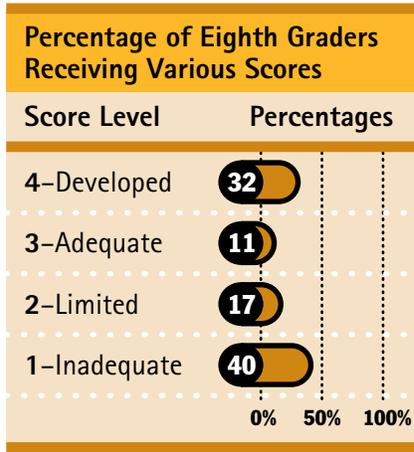
Sample Question 4

This short constructed-response question measures students' abilities to provide the letter names for notes in standard musical notation. The correct answer is shown in the student response below. Responses were scored with a four-level scoring guide that allowed for partial credit. Inadequate responses failed to label any notes correctly. Limited responses labeled one to four notes correctly. Adequate responses labeled five to seven notes correctly. Developed responses labeled all eight notes correctly.

Sample Question 4 with Student Response Receiving a Score of Developed

There will be no music played for questions 4-7. You will have two minutes to answer questions 4-7. Read and answer questions 4-7 now.

Print the letter name of each note on the blank line underneath it.



NOTE: Of the 40 percent of student responses in the lowest score level, 12 percent consists of omits and otherwise unscorable responses.

Sample Question 5

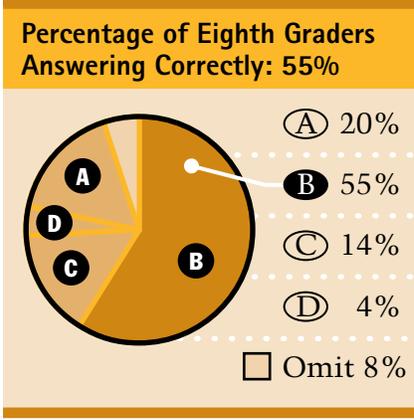
This multiple-choice question measures students' knowledge of time signatures. Responses were scored as either correct or incorrect. The correct answer is B.

Sample Question 5



Which of the following is a correct time signature for the music?

- (A) 2/4
- (B) 3/4
- (C) 4/4
- (D) 5/4



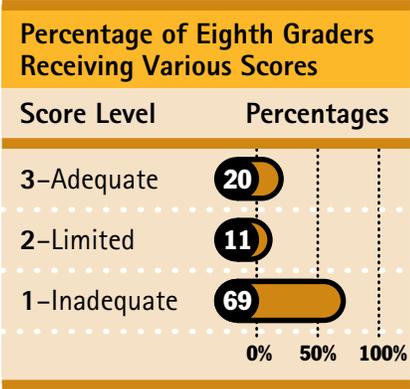
NOTES: Percentages do not sum to 100 due to rounding.

The omit percentage reported includes student refusals, blank or multiple responses, and illegible or otherwise unscorable responses.



Sample Question 6

This short constructed-response question measures students' knowledge of dynamic markings. Responses were scored with a three-level guide that allowed for partial credit. The following sample responses represent a Limited score and the highest score, Adequate.



Sample Student Response Receiving a Score of Limited



What does the symbol in circle 1 tell the performer to do?

Go at a medium pace

What is the musical (Italian) name for the symbol in circle 1?

Piano

NOTE: Of the 69 percent of student responses in the lowest score level, 9 percent consists of omits and otherwise unscorable responses.

Limited. This limited response provided the name of the symbol, but not its correct meaning.

Sample Student Response Receiving a Score of Adequate



What does the symbol in circle 1 tell the performer to do?

Play the music softly.

What is the musical (Italian) name for the symbol in circle 1?

piano

Adequate. This adequate response provided both the meaning of the symbol and its name.



Sample Question 7

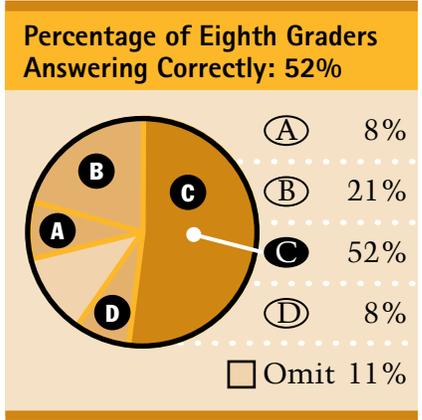
This multiple-choice question measures students' knowledge of rhythmic notation. Responses were scored as either correct or incorrect. The correct answer is C.

Sample Question 7

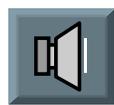


What kind of note is in circle 2 ?

- A An eighth note
- B A quarter note
- C A half note
- D A whole note



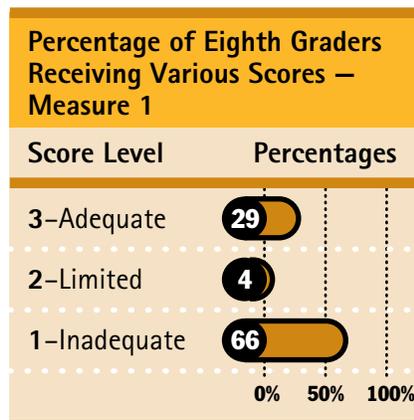
NOTE: The omit percentage reported includes student refusals, blank or multiple responses, and illegible or otherwise unscorable responses.



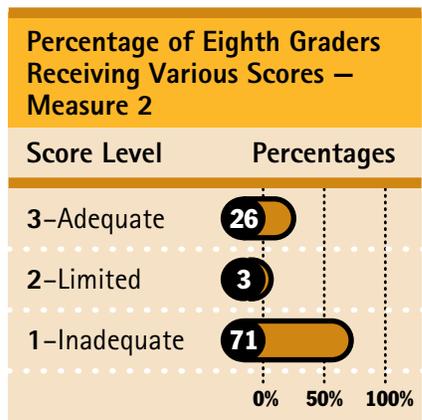
Audio Link to "Rhythm Pattern," NAEP recording

Sample Question 8

This short constructed-response question measures students' abilities to use standard musical notation and to create original music. (For purposes of analysis, results from each part of this question were classified as Creating, rather than Responding items.) Each measure of the response was scored separately for accurate use of musical notation. In addition, a separate score was given to the entire response with regard to the way in which a student did or did not create a musically satisfying ending. The use of accurate music notation was scored with a three-level guide that allowed for partial credit. The following sample student responses represent Inadequate, Limited, and Adequate scores.



NOTES: Percentages do not sum to 100 due to rounding.
Of the 66 percent of student responses in the lowest score level, 8 percent consists of omits and otherwise unscorable responses.



NOTE: Of the 71 percent of student responses in the lowest score level, 22 percent consists of omits and otherwise unscorable responses.



Sample Question 8

For question 8, you are to write an ending for the rhythmic pattern you see below. You will hear it played two times. After you hear the rhythmic pattern, write an ending to the pattern in the empty measures printed in your test booklet. The music that you write should make the rhythm sound finished. You may use notes or rests in your answer, but do not copy any of the measures that are already used in the music. Make sure that the ending that you write has the correct number of beats.



Sample Student Response 1: Use of Musical Notation



Sample Student Response 2: Use of Musical Notation



Sample Student Response 3: Use of Musical Notation



Sample Student Response 4: Use of Musical Notation



Inadequate responses for musical notation for a given measure contained notation that did not add up to four beats, or that merely copied the notation in the first part of the rhythmic phrase.

Limited responses for a given measure included notation that added up to four beats, but which had one or more technical errors, such as an incorrect stem. Adequate responses for a given measure included notation that added up to four beats and which had no notation errors.

Each measure of this response was scored as Inadequate.

The first measure of this response was scored Inadequate; the second measure was scored as Adequate.

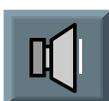
The first measure of this response was scored as Limited because the first eighth note has not been filled in. (It was assumed that the first note in the third measure was a half note.) The second measure of the response was scored as Adequate.

Each measure of this response was scored Adequate.



The quality of students' endings was scored as either Acceptable or Unacceptable. Unacceptable responses ended on weak beats or on weak parts of the beat, had missing beats, or used notation that was so flawed that it could not be interpreted. Acceptable responses, such as the one below, created a musically satisfying ending by concluding on a strong beat.

Sample Student Response Receiving a Score of Acceptable: Ending



Audio Link to "Michael Row the Boat Ashore,"
NAEP recording

Sample Question 9

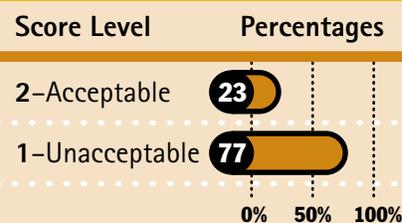
This extended constructed-response question measures students' abilities to critique a vocal performance. Each of the three suggestions that students provided was scored separately as Inadequate (no credit), Limited (1 point), or Adequate (2 point) scores. Limited responses provided either a location of an error or cited a specific error, but not both. Adequate responses provided both an accurate error and its specific location. Each student's total score for Question 9 was calculated by adding together the points earned for each of the three separate responses asked for in the question.

Written Musical Stimulus for Sample Question 9

Michael Row the Boat Ashore

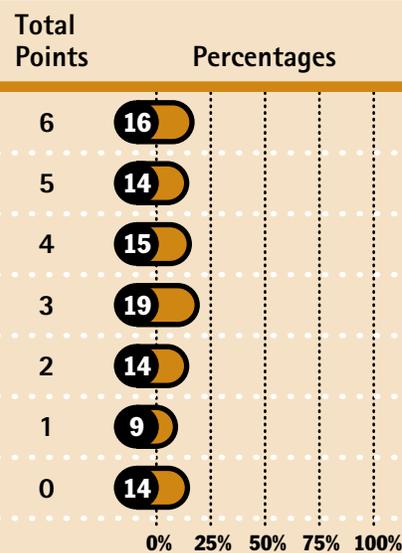
1 Mich - ael row the boat a - shore, Al - le - lu - ia. Mich - ael
 2
 3
 4
 5
 6 row the boat a - shore, Al - le - lu - ia. Sis - ter help to trim the
 7
 8
 9
 10
 11 sails, Al - le - lu - ia. Sis - ter help to trim the sails, Al - le -
 12
 13
 14
 15
 16 lu - ia. Bro - ther come and lend a hand, Al - le - lu
 17
 18
 19
 20
 21 - ia. Broth - er come and lend a hand, Al - le - lu - ia. Mich - ael
 22
 23
 24
 25
 26 row the boat a - shore, Al - le - lu - ia. Mich - ael
 27
 28
 29
 30 row the boat a - shore, Al - le - lu - ia.
 31
 32
 33

Percentage of Eighth Graders Receiving Various Scores – Ending



NOTE: Of the 77 percent of student responses in the lowest score level, 23 percent consists of omits and otherwise unscorable responses.

Percentage of Eighth Graders Receiving Various Scores



NOTES: Percentages do not sum to 100 due to rounding.

Of the 14 percent of student responses in the lowest score level, 3 percent consists of omits and otherwise unscorable responses.

Sample Student Response to Question 9

The music for question 9 is performed by a person who is learning to sing a song. The music for the song is printed on page 8 of your test booklet. Each measure of the music has been numbered in its upper left-hand corner.

In the performance you will hear, the first two verses of the song will be sung correctly. However, starting at measure 17, which is the third verse, you will hear several mistakes in the performance.

As you listen, you may write on the music or circle places in the music where you hear mistakes, but be sure to write your answer on the lines on this page. The music will be played two times. After you hear the music, read question 9.

Identify three specific places in the music where the singer made mistakes. Tell what the mistake was in each place you name.

In measure 20

measure 24

measure 30

This response was scored 1-1-1, for a total of 3 points. In each case, the student provided a Limited response which listed the measure number of an error but failed to discuss the mistake in the performance.

Sample Student Response to Question 9

Identify three specific places in the music where the singer made mistakes. Tell what the mistake was in each place you name.

measure 6, went down on the notes instead of going up

Measure 20, didn't hold the note long enough

Measure 24 + 25, didn't hold long enough

This response was scored 0-2-2, for a total of 4 points. The first response was scored as Inadequate because it is incorrect. The second and third responses are Adequate.



Sample Student Response to Question 9

Identify three specific places in the music where the singer made mistakes. Tell what the mistake was in each place you name.

20 she paused and wasn't supposed to.

30 on row she sang the note to high.

33 she sang the last note too long.

This student received 2-2-2, for a total of 6 points. In each case, the student provided an Adequate response by naming a specific location and describing a specific error.

Sample Question 10

This short constructed-response question measures students' awareness of the function of music in society. Responses were scored with a three-level guide that allowed for partial credit. The following sample student responses represent a Limited score and the highest score, Adequate.

Sample Student Response to Question 10 Receiving a Score of Limited

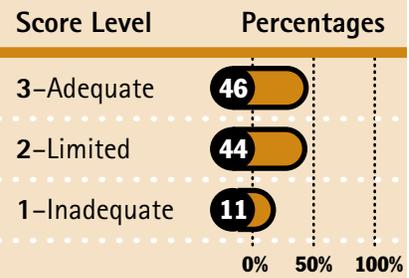
Describe two different ways music is used in movies or television shows.

a song in movie

showing action

Limited. In the second part of this Limited response, the student provides one functional use of music. The student did not receive credit for the first part of the response because it was too vague.

Percentage of Eighth Graders Receiving Various Scores



NOTES: Percentages do not sum to 100 due to rounding.

Of the 11 percent of student responses in the lowest score level, 2 percent consists of omits and otherwise unscorable responses.



Sample Student Response to Question 10 Receiving a Score of Adequate

Describe two different ways music is used in movies or television shows.

Music in movies used to show excitement and more emotional scenes; takes up time for credits @ the end

Music in television shows used to identify specific shows, as well as to make more interesting to hear for viewers

Adequate. In each of the two parts of this Adequate response, the student provided a functional use of music. The wording of the second part of the response was interpreted as referring to "theme music."

(The music played for Question 11 was the first 55 seconds of "The Washington Post March" by John Philip Sousa. The recording used was from NIMBUS CD #NI 5129.)

Sample Question 11

This short constructed-response question measures students' awareness of the function of music in society. Responses were scored with a four-level guide that allowed for partial credit. Responses in which students correctly answered the multiple-choice part of the question (D) but failed to explain why were scored as Limited. The following sample student responses represent an Adequate score and the highest score, Developed.

Sample Student Response to Question 11 Receiving a Score of Adequate

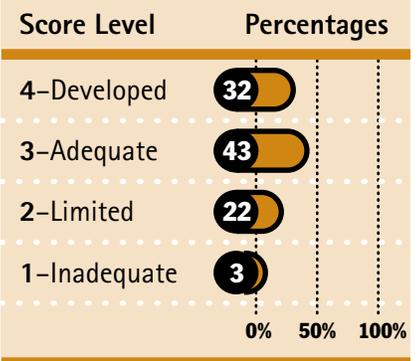
You would most likely hear this music at a

- (A) funeral
 (B) wedding
 (C) rock concert
 (D) parade

Describe one specific detail in the music you heard that makes it useful for the event you selected.

The music has an upbeat sound and it has a happy mood and good tone.

Percentage of Eighth Graders Receiving Various Scores



NOTE: Of the 3 percent of student responses in the lowest score level, 1 percent consists of omits and otherwise unscorable responses.

Adequate. This student response was scored as Adequate. The student provided a correct response to the multiple-choice part of the question; however, the rationale for the student's choice was judged as rather general and not specifically descriptive of the music played.

Sample Student Response to Question 11 Receiving a Score of Developed

You would most likely hear this music at a

- (A) funeral
- (B) wedding
- (C) rock concert
- (D) parade

Describe one specific detail in the music you heard that makes it useful for the event you selected.

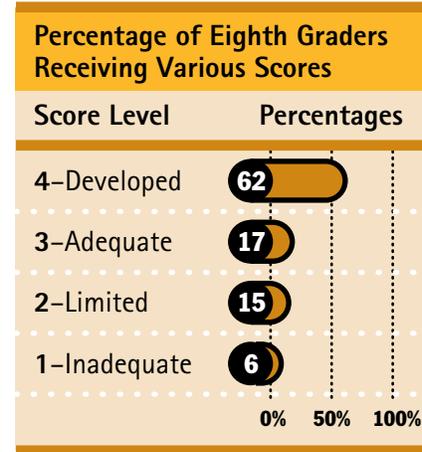
it has a good marching beat, and it is enjoyable.

Developed. This student response was scored as Developed because it provided a correct response to the multiple-choice part of the question and offered a specific reference to an element of the music.

(The music played for Question 12 was the first 50 seconds of an instrumental arrangement of Brahms' "Lullaby." The recording used was from CBS CD #MDK 44998, copyright CBS Records, 1989.)

Sample Question 12

This short constructed-response question measures students' awareness of the function of music in society. Responses were scored with a four-level guide that allowed for partial credit. Responses that correctly answered the multiple-choice part of the question (B) but failed to explain why were scored as Limited. The following sample student responses represent Adequate and Developed scores.



NOTE: Of the 6 percent of student responses in the lowest score level, 1 percent consists of omits and otherwise unscorable responses.

Sample Student Response to Question 12 Receiving a Score of Adequate

What would be a common way to use this music?

- (A) To provide music for tap dancing
- (B) To help young children fall asleep
- (C) To help people feel patriotic
- (D) To cheer on sports teams

Describe one specific feature of the music that makes it useful for the purpose you selected.

The sound and speed that make young children fall asleep

Adequate. This response was scored as Adequate because the student correctly answered the multiple-choice part of the question but only supplied a brief reference to a relevant feature of the music.

Sample Student Response to Question 12 Receiving a Score of Developed

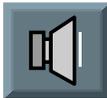
What would be a common way to use this music?

- (A) To provide music for tap dancing
- (B) To help young children fall asleep**
- (C) To help people feel patriotic
- (D) To cheer on sports teams

Describe one specific feature of the music that makes it useful for the purpose you selected.

*It is quiet, soft, and relaxing
so it would be good to put children
to sleep with.*

Developed. This student response was scored as Developed because it provided the correct answer to the multiple-choice question along with a specific description of an appropriate musical feature.



Audio Link to "Wade in the Water," entire song, copyright 1994, Smithsonian Folkways Recordings

Sample Question 14

This multiple-choice question measures students' knowledge of meter. Responses were scored as either correct or incorrect. The correct answer is B.

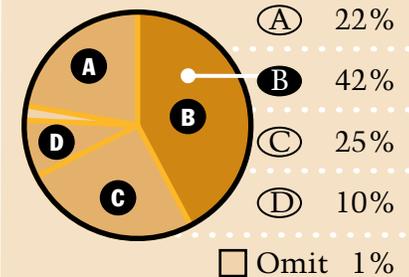
Sample Question 14

The music for questions 14-16 will be played one time. After you hear the music, you will have two minutes to answer questions 14-16. Before you hear the music, read questions 14-16.

Which of the following would be a correct time signature for the music?

- (A) $\frac{3}{4}$
- (B) $\frac{4}{4}$**
- (C) $\frac{5}{4}$
- (D) $\frac{9}{8}$

Percentage of Eighth Graders Answering Correctly: 42%



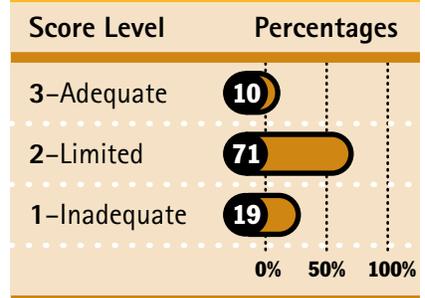
NOTE: The omit percentage reported includes student refusals, blank or multiple responses, and illegible or otherwise unscorable responses.



Sample Question 15

This short constructed-response question measures students' knowledge of features of musical style. Responses were scored with a three-level guide that allowed for partial credit. The following sample student responses represent a Limited score and the highest score, Adequate.

Percentage of Eighth Graders Receiving Various Scores



NOTE: Of the 19 percent of student responses in the lowest score level, 3 percent consists of omits and otherwise unscorable responses.

Sample Student Response to Question 15 Receiving a Score of Limited

Describe in detail one specific feature of the music that helps to identify this song as a spiritual.

it has a slow beat and it sounds sad

Limited. This student response was scored as Limited because it only generally described the music, without reference to a characteristic stylistic feature.

Sample Student Response to Question 15 Receiving a Score of Adequate

Describe in detail one specific feature of the music that helps to identify this song as a spiritual.

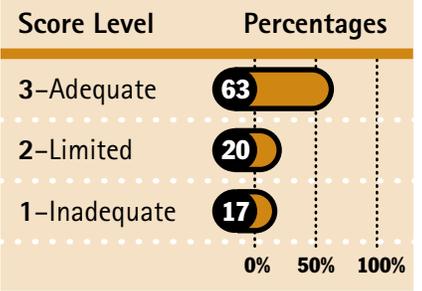
This music has one person take a solo then join back in a chorus they all sing the chorus

Adequate. This student response was scored as Adequate because it provided a specific description of an important stylistic feature associated with spirituals.

Sample Question 16

This short constructed-response question measures students' knowledge of historical contexts of music. Responses were scored with a three-level guide that allowed for partial credit. The following sample student responses represent a Limited score and the highest score, Adequate.

Percentage of Eighth Graders Receiving Various Scores



NOTE: Of the 17 percent of student responses in the lowest score level, 3 percent consists of omits and otherwise unscorable responses.

Sample Student Response to Question 16 Receiving a Score of Limited

Give one specific reason why spirituals such as this one were important in the daily lives of the people who originally sang them.

it tells about their life

Limited. This student response was scored as Limited because it offered a minimal description of the importance of spirituals.

Sample Student Response to Question 16 Receiving a Score of Adequate

Give one specific reason why spirituals such as this one were important in the daily lives of the people who originally sang them.

It gave them a chance to express themselves and how they felt.

Adequate. This student response was scored as Adequate because it offered a specific rationale for the importance of spirituals.

Figure 2.5



Sample questions and student responses from the "Minuet in G" block are found on the CD-ROM version of this report.



Part Two

The Music Responding Item Map and Student Profile

Reporting the Music Assessment Results

In this section, overall summaries of Responding results and their relationship to student-reported background variables are featured.

The overall summaries deal with Responding, Creating, and Performing results separately. While the knowledge and skills students draw upon to Create, Perform, and Respond in music do overlap and inform one another, it is plausible that some students will Create and Perform but not Respond well, and vice versa. To do justice to differing abilities among students, results for Creating, Performing, and Responding exercises are summarized separately.⁶

The Music Responding Scale

The music assessment measured students' Responding abilities with both short and extended constructed-response exercises and with multiple-choice questions. Item Response Theory (IRT) methods

were used to produce a scale that summarizes results for the Responding exercises. The scale ranges from 0 to 300. Item Response Theory (IRT) is a set of statistical models useful in summarizing student performance across a collection of test exercises requiring similar knowledge and skills. In the context of the music assessment, IRT methods were used to create a summarizing scale that relates the probability of students doing well or badly on the music assessment exercises to their general Responding abilities in music.

Preliminary analyses of the data for Responding items indicated that the fit of the items on scales could be improved by grouping items into two general types – those that included work with standard music notation and those that did not. For reporting, items on each of these interim scales were combined into an overall composite scale.

Student responses to Responding exercises were analyzed to determine: (1) the percentage of students responding correctly to each multiple-choice question, and

(2) the percentage of students achieving each of the score levels for constructed-response questions.

It is useful to illustrate the level of performance of students with a given scale score by identifying questions likely to be answered correctly by students with that scale score. This process is known as "mapping." The position of a question on the Responding scale represents the scale score attained by students who had: (1) at least a 65 percent probability of reaching a given score level on a constructed-response question, or (2) at least a 74 percent probability of correctly answering a multiple-choice question.

The music Responding scale item map is presented in Figure 2.6. Multiple-choice questions are shown in italics, and constructed-response questions in regular typeface. The item map indicates selected examples of the types of questions that were likely to be answered successfully at given rates of probability by students scoring at particular levels on the Responding scale. Constructed-

⁶ Furthermore, a measurement requirement for summarizing student responses to different exercises together is that those exercises measure the same or similar knowledge and skills. The range of music knowledge and skills is very wide. Knowledge and skills are also related in subtle and various ways in their applications to Creating, Performing, and Responding. These factors diminish the possibility that the processes, in strict measurement terms, utilize knowledge and skills in ways similar enough to be summarized on a single scale.

response items may appear more than once on the scale, with different scale point levels indicating different levels of partial credit or full credit using the multi-level scoring guide. For example, consider the question appearing at scale points 89 and 180 on the music Responding scale. The question asked students to provide two different ways in which music is used in movies or television shows. Scoring of this question allowed for partial credit by using a three-level scoring guide. As is indicated in Figure 2.6, at least 65 percent of the students at Responding scale point 89 were able to provide one way music is used in movies or television shows. These students scored partial credit (Level 2: Limited) on this question. At Responding scale point 180, at least 65 percent of the students were able to provide two different ways music is used in movies or television shows. These

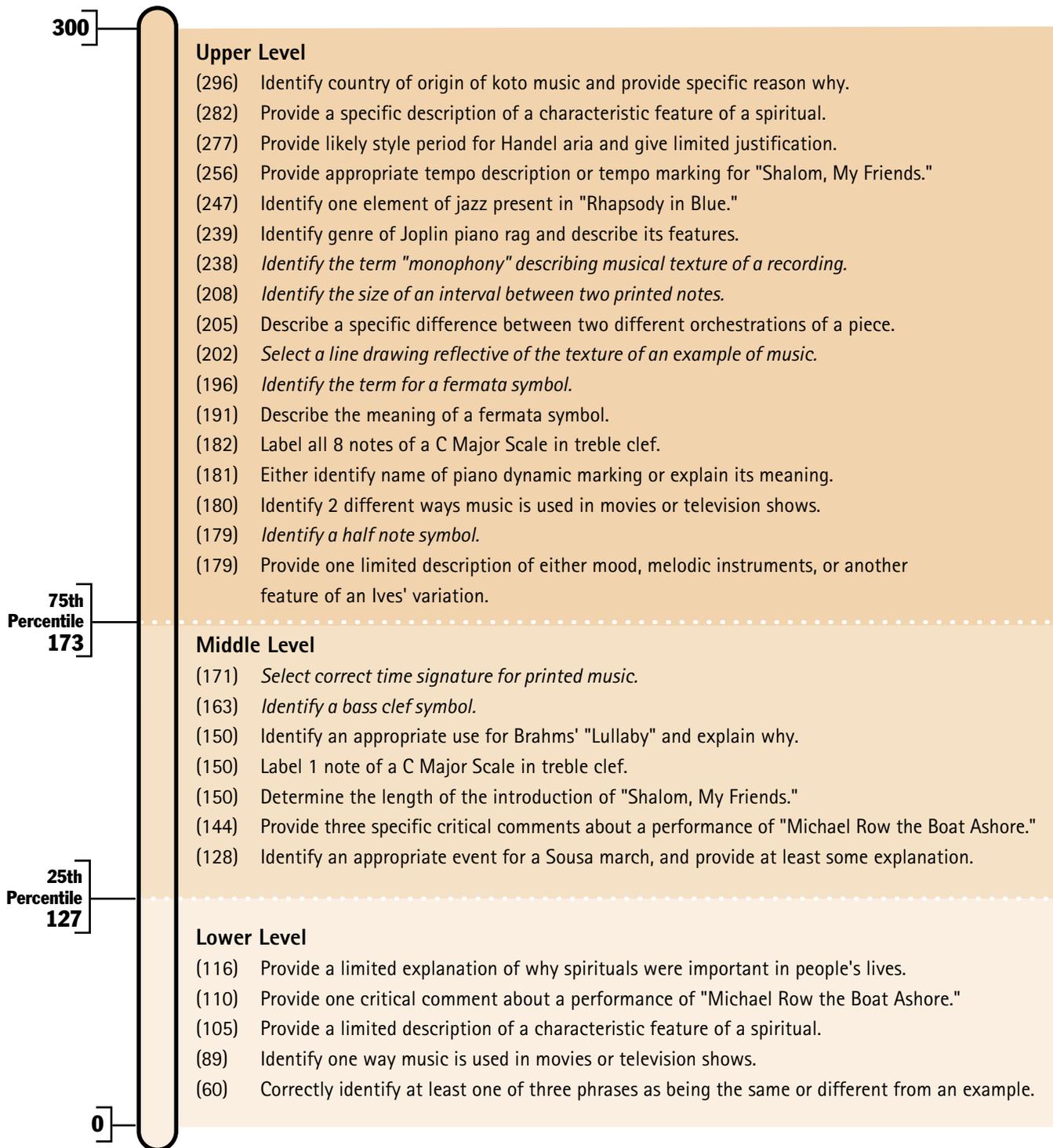
students earned full credit (Level 3: Adequate) on this question.

Individual multiple-choice questions appear one time on the Responding scale. For example, at least 74 percent of the students scoring at or above scale point 179 were able to identify a half note shown in standard music notation. For both multiple-choice and constructed-response questions, appearance of a given question at a Responding scale point does not mean that all students below that score point failed to answer the question correctly or that all students above that scale point answered the question correctly. Rather, the appearance of a question at a given point on the Responding scale indicates its relative level of difficulty and the overall performance of students of similar levels of ability for all items in the music Responding scale.



Figure 2.6

Map of Selected Questions on the NAEP Music Responding Scale: Grade 8



NOTE: Italic type indicates a multiple-choice question. Regular type indicates a constructed-response question.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

The Music Responding Item Map

As is presented in Figure 2.6, the NAEP music Responding scale, ranging from 0 to 300, summarizes the overall Responding score results of students. The following descriptions of students' Responding knowledge and skills in music are based on sets of questions that were answered successfully by students performing within three ranges of the scale. These ranges represent lower-, middle-, and upper-level performances based on percentiles.⁷

Students in the Lower Range of the Responding Scale

Students who were in the lower range of the music scale (points 0 to 127) were able to make simple distinctions about the music phrases they heard as being the same or different from examples played. They showed a limited knowledge of the functional uses of music in society and limited knowledge of the historical or cultural significance of musical genres such as spirituals. Students in this group were able to describe adequately one error heard in a performance of the folk song "Michael Row the Boat Ashore."

Students in the Middle Range of the Responding Scale

Students who were in the middle range of the music scale (points 128 to 173) showed a broader understanding of the functions of music in society; they were, for example, able to determine and justify appropriate uses of lullabies and marches. Students at the middle level of proficiency demonstrated knowledge of basic terms

and fundamentals of music notation, such as selecting a time signature, knowing the term for the bass clef, and being able to label pitches in the treble clef. Students in this group were able to describe adequately three errors heard in a performance of the folk song "Michael Row the Boat Ashore."

Students in the Upper Range of the Responding Scale

Students who were in the upper range of the music scale (points 174 to 300) were able to identify appropriate line drawings reflective of the texture of music they heard. These students were able to provide limited descriptions of aspects of music they heard, such as describing differences between two different arrangements of the same piece. Students in this group were able to identify the genres or style periods of some pieces of music they heard (such as a Joplin piano rag and an aria by Handel) and could provide limited justification for their categorizations. Students in the upper range displayed skills in more advanced concepts in standard music notation and music terminology, such as some knowledge of tempo markings, dynamics, fermatas, intervals, and terms used to describe texture, such as "monophony."

Profile of Students' Music Experiences

An examination of opportunity-to-learn factors provided by students in

the music background questionnaires helps to illustrate activities that are associated with various levels of proficiency in the NAEP music Responding scale. As shown in Figure 2.7, enrollment in some type of school music ensemble was associated with generally higher levels of performance on the NAEP music Responding scale, especially in distinguishing between groups of middle-level and upper-level students.⁸ Notably higher percentages of enrollments in school bands and choruses were observed in the middle-level and upper-level groups of students, in contrast to students in the lower-level group. A similar contrast is observed in orchestra enrollment between the upper-level and lower-level groups of students.

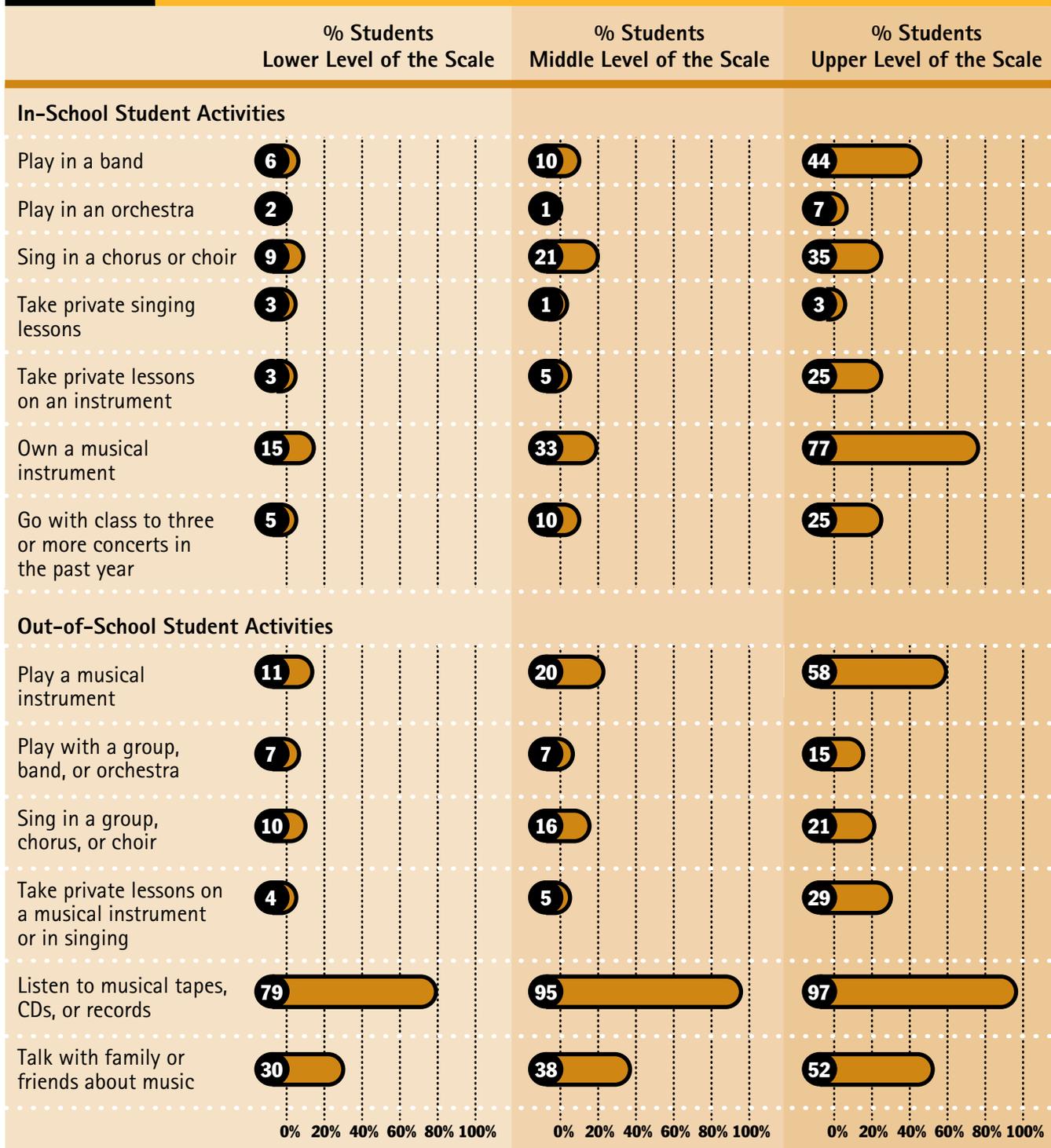
Other activities that were associated with higher levels of proficiency in the music Responding scale include taking private music lessons on a musical instrument or in singing out of school, ownership of a musical instrument, participating in some type of musical ensemble outside of school, attending music concerts with a class, and talking with family or friends about music. The overall percentages of students reporting listening to music were very high. The percentage of students indicating listening to music tended to increase between the group of students in the lower level and the middle level of the NAEP music Responding scale.

7 A percentile is a scale score below which a specified percentage of the population scored. For example, the 25th percentile as given in Figure 2.6 is 127. Twenty-five percent of students had scale scores of 127 or lower. Similarly, the 75th percentile as shown in Figure 2.6 is 173. Seventy-five percent of the students had scale scores of 173 or lower. Equivalently, 25 percent of the students had scale scores above 173.

8 The lower group comprised students whose scores fell into the lowest 25 percent of the population. The middle group comprised students whose scores fell into the middle 50 percent of the population. The upper group comprised students whose scores fell into the highest 25 percent of the population.

Figure 2.7

Music Responding Profile of Percentages of Students in Lower, Middle, and Upper Levels of the Responding Scale, by Selected In- and Out-of-School Activities



SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Relationships Between Student Music Creating, Performing, and Responding Results

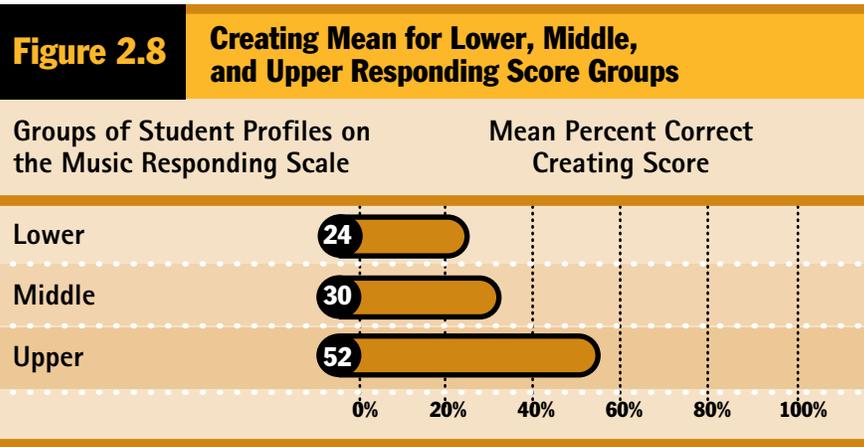
Because the NAEP arts framework describes the interrelationships among the artistic processes of Creating, Performing, and Responding, it is useful to examine how student performance in one process is related to performance in the others. Figures 2.8 and 2.9 present data indicating the percent correct of possible scores for music Creating and Performing earned by students in each of the groups (lower, middle, and upper) for the music Responding scale. As is shown in Figures 2.8 and 2.9, there is a positive relationship between students' scores in music Responding and their scores in music Creating and Performing.

As shown in Figure 2.8, students in the lower group for music Responding received an overall mean of 24 percent of the possible points in the Creating score. The respective figures for students in the middle group and the upper group were 30 percent and 52 percent. Creating scores of students in the middle level of the Responding scale were significantly higher than scores of students in the lower level of the Responding scale. Creating scores of students in the upper level of the Responding scale were significantly higher than groups of students in the middle and lower levels.

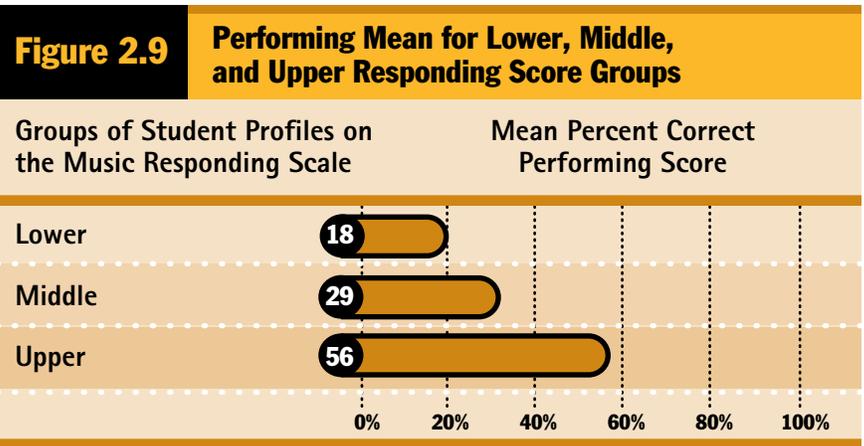
As shown in Figure 2.9, students in the lower group for Responding received an overall mean of 18 percent of the possible points in the Performing score. Students in the middle group received 29 percent, and students in the upper group received 56 percent of the possible points in Performing. Performing scores of students in the middle level of the Responding scale were significantly higher than scores of students in the lower level of the

Responding scale. Performing scores of students in the upper level of the Responding scale were significantly higher than groups of students in the middle and lower levels.

The patterns of student achievement shown in Figures 2.8 and 2.9 may suggest several interpretations. Further research is needed to examine the ways in which Creating, Performing, and Responding abilities are related.



SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Part Three

Sample Tasks from the Music Creating and Performing Blocks

Creating and Performing Blocks for Students in the General Student Population

Part Three describes the music Creating and Performing blocks and illustrates student responses to the exercises. For each of the Creating and Performing music blocks, students completed the tasks individually by appointment following the class administration of the music Responding blocks. Each of the performance sessions was

recorded in entirety on audiotape in order to collect student responses for later scoring. There were a total of five different NAEP music Creating and Performing blocks. Three of the blocks were intended for the general student body, including both students who were or were not currently involved in a music activity. Each student completed one of the three general Creating and Performing blocks of exercises. The three general Creating and Performing blocks are described in Figures 2.10–2.12. Two additional

blocks were designed to be administered only to students who indicated current enrollment in some type of musical activity, such as singing in a school chorus or taking private music lessons. Each of the students who was sampled for a supplemental block of exercises completed one of the two additional blocks directly after finishing one of the three Creating and Performing blocks designed for the general student body. The two supplemental blocks are described in Figures 2.13 and 2.14.

Figure 2.10   **Sample Questions and Student Responses from the “The Lion Sleeps Tonight’/’Twinkle, Twinkle, Little Star’ ” Block are found on the CD-ROM version of this report.** 

Figure 2.11   **Sample Questions and Student Responses from the “Ode to Joy’/’Sing ‘America’ ” Block are found on the CD-ROM version of this report.** 

Figure 2.12   **Sample Questions and Student Responses from the “Rock Improvisation and Evaluation” Block are found on the CD-ROM version of this report.** 

Creating and Performing Blocks for Students Enrolled in Music Activities

In addition to the three music blocks for the general student population described in Figures 2.10 to 2.12, the NAEP music assessment contained two additional blocks of activities

designed for students currently involved in musical activities. Students who indicated current involvement in some type of in-school or out-of-school music activity were eligible to be selected for administration of a second music Creating and Performing block. Students who were sampled for one of the two supplemental music

blocks completed that block after first completing one of the three Creating and Performing blocks designed for the general student population. The two supplemental NAEP music assessment blocks are described in Figures 2.13 and 2.14.

Figure 2.13



Sample Questions and Student Responses from the “Jazz Improvisation and Melodic Sight-Reading” Block are found on the CD-ROM version of this report.



Figure 2.14



Sample Questions and Student Responses from the “Large Ensemble” Block are found on the CD-ROM version of this report.



Part Four

Summarizing Music Creating and Performing Results

Creating and Performing tasks in the NAEP music assessment, unlike the Responding items, were administered to students individually. Because of the amount of time needed to administer and score exercises individually, it was necessary to limit the overall number of Creating and Performing items contained in the assessment.

Because of the relatively small number of Performing and Creating items, it was not feasible to create overall scales using item response theory (IRT) for these constructs. Rather, Creating and Performing results are presented in terms of a total (or "aggregate") score for each. In this section, student results are presented as average percents of

the maximum score possible for a given aggregate score. The results for the additional Creating and Performing tasks administered to the special subsample of students currently enrolled in a music activity (see Figures 2.13 and 2.14 in Part 3) are not included in the overall Creating and Performing aggregate scores.

Creating and Performing Results and Student Opportunity-to-Learn Data

The NAEP music assessment student background questionnaire asked students to report how frequently they engaged in various musical activities in school and out of school. Tables 2.7 to 2.11 present the Creating and Performing scores

of students linked to response categories from the student questionnaires. Although the results presented in these tables should not be used to infer causal relationships, they do allow researchers to examine overall patterns of results.



Table 2.7 Percentages of Students and Their Performing Scores by Students' Involvement in Various In-School Music Activities

When you take music class in school, how often does your teacher do each of the following things?		Average Performing Score (0-100%)	Ask You to Sing		Average Performing Score (0-100%)
Play Music for You to Listen to	% Students			% Students	
Almost Every Day	28	33	Almost Every Day	13	40
Once or Twice a Week	13	39	Once or Twice a Week	11	36
Once or Twice a Month	10	44	Once or Twice a Month	6	32
Never or Hardly Ever	14	35	Never or Hardly Ever	35	36
I Don't Have Music	34	29	I Don't Have Music	35	29
	0% 50% 100%			0% 50% 100%	

Ask You to Play Instruments		Average Performing Score (0-100%)
	% Students	
Almost Every Day	16	53
Once or Twice a Week	6	38
Once or Twice a Month	6	35
Never or Hardly Ever	32	31
I Don't Have Music	40	27
	0% 50% 100%	

Table 2.7 presents overall performing scores linked to students' responses to questions about their involvement in musical activities. As this table shows, sampling estimates of the total percentage of eighth grade students not enrolled in a music class ranged from 34 to 40 percent. This group of students obtained a total of from 27 to 29 percent of the total possible points available for performance items. Analysis of the percentages of students indicating various frequencies for selected music activities in their school music class revealed several significant differences between groups in performing scores. Students who indicated that they were not in any school music class scored significantly lower in performing than students whose music teachers played music for the class to listen to once or twice a week, or once or twice a month. There were no differences between the performance scores of students not enrolled in music and those whose teachers played music almost every day or never or hardly ever. Students whose music teachers played music once or twice a month scored significantly higher than students whose teachers played music almost every day.

Students whose music teachers asked students to sing almost every day scored significantly higher in performing than students who reported not having music. In addition, students enrolled in a school music class in which the teacher never or hardly ever asked

NOTE: Percentages do not sum to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



students to sing scored significantly higher than students not enrolled in any school music class.

Students whose music teachers asked students to play instruments almost every day scored significantly higher in performing than all other groups of students. In addition, students whose music teachers asked students to play instruments once or twice a week scored significantly higher than students who were not enrolled in a school music class.

Table 2.8

Percentages of Students and Their Creating Scores by Students' Involvement in Various In-School Music Activities

When you take music class in school, how often does your teacher do each of the following things?		Average Creating Score (0-100%)	Ask You to Sing		Average Creating Score (0-100%)
Play Music for You to Listen to	% Students			% Students	
Almost Every Day	28	33	Almost Every Day	13	42
Once or Twice a Week	13	42	Once or Twice a Week	11	35
Once or Twice a Month	10	42	Once or Twice a Month	6	37
Never or Hardly Ever	14	33	Never or Hardly Ever	35	35
I Don't Have Music	34	30	I Don't Have Music	35	31
	0% 50% 100%			0% 50% 100%	
Ask You to Play Instruments	% Students	Average Creating Score (0-100%)	Ask You to Write Down Music	% Students	Average Creating Score (0-100%)
Almost Every Day	16	50	Almost Every Day	5	39
Once or Twice a Week	6	41	Once or Twice a Week	10	37
Once or Twice a Month	6	35	Once or Twice a Month	11	39
Never or Hardly Ever	32	31	Never or Hardly Ever	36	37
I Don't Have Music	40	30	I Don't Have Music	38	30
	0% 50% 100%			0% 50% 100%	
			Ask You to Make up Your Own Music	% Students	Average Creating Score (0-100%)
			Almost Every Day	4	40
			Once or Twice a Week	5	35
			Once or Twice a Month	8	34
			Never or Hardly Ever	47	38
			I Don't Have Music	37	30
				0% 50% 100%	

Table 2.8 presents results for overall Creating scores linked to students' responses to questions about their involvement in musical activities. As this table shows, students who were enrolled in music classrooms in which teachers played music for students once or twice a week, or once or twice a month, scored significantly higher in overall Creating scores than students whose teachers played music almost every day, or never or hardly ever, and students who did not receive music instruction. Students who were enrolled in classes in which the teacher asked students to sing almost every day scored significantly higher in Creating than did students whose teacher asked them to sing once or twice a week, or never or hardly ever, and students who were not enrolled in music.

NOTE: Percentages do not sum to 100 due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Students whose teachers asked them to play instruments every day scored significantly higher in Creating than students in all other groups. Students whose teachers asked them to play instruments at least once or twice a week scored significantly higher than students whose teachers never or hardly ever asked them to play instruments,

and students who were not enrolled in music.

Students enrolled in music classes in which teachers asked them to write down music once or twice a week, once or twice a month, or never or hardly ever, scored significantly higher in Creating than students who did not have music. Very few students indicated that

their music teacher asked them to create their own music. The group of students who were enrolled in music but indicated that their teacher never or hardly ever asked them to make up their own music scored significantly higher in Creating than the students who were not enrolled in music.

Table 2.9 presents results for overall Performing and Creating scores linked to student involvement in school performing ensembles. As this table shows, students who were enrolled in a school band or

chorus scored significantly higher in Performing than students who were not. (There were too few students enrolled in school orchestras to make a comparison between groups for Performing scores.) In addition,

students enrolled in school bands, orchestras, or choruses scored higher in Creating scores than students who were not enrolled in a performing ensemble.

Table 2.9

Percentages of Students and Their Performing and Creating Scores by Students' Involvement in Various In-School Music Activities

Which of the following activities do you do in school?		% Students	Average Performing Score (0-100%)	Average Creating Score (0-100%)
Play in a Band	Yes	18	52	50
	No	82	30	31
Play in an Orchestra	Yes	3	—	53
	No	97	33	34
Sing in a Chorus or Choir	Yes	22	43	40
	No	78	31	33

NOTE: – Sample size is insufficient to provide a reliable estimate.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Table 2.10 presents Performing and Creating score results linked with students' involvement in selected musical activities outside of school. The data show that involvement in out-of-school

musical activities is associated with significantly higher scores in Performing and Creating. In each case, students who indicated that they took private lessons; listened to musical tapes, CD's, or records; or

read books about music, had significantly higher scores in Performing and in Creating than students who did not do so.

Table 2.10 Percentages of Students and Their Performing and Creating Scores by Students' Involvement in Various Out-of-School Music Activities

When you are NOT in school, do you ever do the following things on your own, NOT in connection with schoolwork?	% Students	Average Performing Score (0-100%)	Average Creating Score (0-100%)
Take Private Lessons on a Musical Instrument or in Singing	Yes 11	59	52
	No 89	31	32
Listen to a Musical Tape, CD or Record	Yes 92	35	35
	No 8	21	29
Read a Book About Music	Yes 12	41	42
	No 88	33	33

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Table 2.11 presents students' Performing and Creating score results linked with their attendance at concerts and musical performances. As this table shows, increased attendance at concerts and musical performances is associated with higher scores in Performing. Students who attended three or more concerts with their class during the past year had higher Performing scores than students who had attended fewer or no

concerts. In addition, students who attended one or two concerts with their class in the past year had higher Performing scores than students who did not attend any. Listening to musical performances at school is also associated with higher Performing scores. Students who indicated that they had listened to at least one musical performance at school had higher proficiency than students who did not.

Students' scores in Creating followed many patterns similar to those in Performing. Students who attended three or more concerts with their class during the past year scored significantly higher in Creating than students who did not. Students who indicated that they had listened to at least one musical performance at school displayed higher proficiency than students who had not.

Table 2.11 Percentages of Students and Their Performing and Creating Scores by Students' In-School Experiences

Listening to or attending musical performances	% Students	Average Performing Score (0-100%)	Average Creating Score (0-100%)
In the last year, how many times did you go with your class to a concert?	None 61	31	32
	1 or 2 26	37	35
	3+ 13	43	45
Have you ever listened to a musical performance at school?	Yes 77	36	36
	No 23	24	30

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.



Summary

Chapter 2 described students' proficiencies in music Creating, Performing, and Responding, as well as relating results in each of those processes to school and student background variables. The design of the NAEP music assessment allowed for exploration of a wide range of skills and abilities. Some items and tasks were relatively easy for students to complete successfully; others were more difficult for students to master. The results obtained in the various parts of the NAEP music assessment can help to provide a picture of the abilities of American students in each of the three processes of music assessed.

Patterns of Student Performance

Responding

As called for in the assessment framework, the music assessment tasks measuring students' Responding abilities included a wide range of musical stimuli, item types, and content areas.

- The results of student responses to Responding questions in the music assessment indicated that most eighth-grade students were able to distinguish phrases as being the same as or different from one another, could identify the timbres of some solo instruments, and were able to perceive the contour of a short melodic phrase. Students also tended to do well on simple questions asking about the functions of

music in society. For example, 79 percent of students were able to identify part of a phrase from "Au Clair de la Lune" as moving in a pattern of "steps going down," and 66 percent of students were able to identify the sound of an unaccompanied melody as being played on a saxophone. Ninety percent of students could provide one way music is used in movies and television shows.

- Some students were able to successfully answer questions dealing with topics such as describing characteristic features of a spiritual, interpreting musical notation, and writing a critique of a musical performance. For example, 52 percent of students could identify a half note, 45 percent could supply at least two specific errors heard in a performance of "Michael Row the Boat Ashore," 32 percent could label all of the notes of a C major scale in the treble clef, and 20 percent of students could identify the term for a piano dynamic marking and give its meaning. Ten percent of students could describe a specific characteristic stylistic feature heard in "Wade in the Water."

Creating

Students participating in the music assessment were asked to engage in several Creating activities in music, including writing an ending to a rhythmic phrase, creating a rhythmic embellishment based on

a familiar tune, developing an original melody, and participating in improvisation activities.

- While performing a rhythmic improvisation for the tune "The Lion Sleeps Tonight," 12 percent of the students scored at the Developed level in their ability to play in rhythm with the background music. Twenty percent of the students were able to create a rhythmic improvisation judged Adequate or above in overall interest and appeal. Twenty-four percent of the students were able to create a rhythmic embellishment on the first two phrases of the tune "Ode to Joy" scored Adequate or above in interest and appeal.
- In the "Rock Improvisation" set of exercises, 39 percent of the students were able to play in rhythm with the background music at the Developed level. Thirty-five percent of the students were able to create keyboard improvisations judged Adequate or above in interest and appeal. When performing vocal improvisations, 47 percent of the students were able to perform in rhythm with the background music at the Developed level, while 4 percent were able to sing in the key of the background music at the Developed level. Thirteen percent of the students were able to create vocal improvisations that were at or above the Adequate level

in terms of overall interest and appeal.

Many students showed a lack of ability to appropriately evaluate and discuss their creative activities. After completing the creative activities dealing with the rock music idiom, students completed two written self-evaluation questions. For these questions, 12 and 14 percent of students, respectively, received the highest score (Level 3: Adequate).

Performing

In the NAEP music assessment, the Performing skills of the general student population were measured by asking students to play familiar tunes by ear on the MIDI keyboard and to sing the song "America" with audiotape accompaniment.

- On the tune "Ode to Joy," 21 percent of the students were able to perform the pitches by ear accurately at the Adequate level or above, and 17 percent of the students were able to perform the rhythms by ear accurately at the Adequate level or above.
- On the tune "Twinkle, Twinkle, Little Star," 25 percent of the students performed the pitches at an Adequate level or above, and 26 percent performed the rhythms at an Adequate level or above.
- When asked to sing "America," the respective percentages of students performing at or above the Adequate level were 35

percent for Pitch, 24 percent for Tone Quality, and 52 percent for Diction. For Rhythm and Expression, which were scored using three-level guides, the respective percentages of students at or above the Limited level were 78 and 51.

The Relationship Between Background Variables and Student Performance

Although the results of the NAEP background questionnaires cannot be used to infer causal relationships, these data provide useful information about patterns of student performance and how they relate to various student characteristics.

In general, higher student proficiency in music Creating and Performing was associated with several in-school and out-of-school musical activities, such as enrollment in a school music ensemble, taking private lessons, listening to recordings out of school, reading books about music, and attending concerts and performances.

Many of the patterns observed in music Creating and Performing scores were also observed for music Responding.

Students whose Responding scores were in the upper level of the scale reported significantly higher rates of participation than students in the lower level of the scale for many in-school and out-of-school musical activities. Examples of the activities included participation in

both in-school and out-of-school music ensembles, and enrollment in private lessons.

Some instructional practices within school music classes were also associated with higher scores in music Creating and Performing, although not all patterns were consistent and not all in-class musical activities were associated with higher proficiency. Students who were in classes in which the teacher asked them to sing almost every day scored higher in music Creating than all other groups of students whose teachers asked them to sing less frequently. A similar pattern was observed for students whose music teachers asked them to play instruments almost every day. Within school music classes, no patterns of increased proficiency in Creating were observed with regard to the frequency with which music teachers asked students to write music down or to make up their own music.

Some relationships between in-school music activities and assessment performance were also observed in the area of music Performing. Students whose teachers asked them to play instruments every day scored higher in music Performing than all other groups of students. Students whose teachers asked them to sing almost every day scored higher in music Performing than students not enrolled in a music class.