## Chapter Two

## music



## Chapter Two

## 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 "broadbased, 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 multiplechoice questions than did previous generations of music assessments.

[^0]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.

[^1]
## Figure 2.1

 The Content Description of the NAEP Music Assessment
## Block Name

"Shalom, My Friends"
(Responding Block)

"Musical Texture"<br>(Responding Block)

"Michael Row the Boat Ashore"
(Responding Block)
"Minuet in G"
(Responding Block)

## "'The Lion Sleeps <br> Tonight'/'Twinkle, Twinkle, Little Star'" <br> (Creating and Performing Block)

## "'Ode to Joy'/

Sing 'America' "
(Creating and Performing Block)

## "Rock Improvisation and Evaluation" (Creating Block)

## "Jazz Improvisation

 and Melodic Sight-Reading"(Creating and Performing Block)

"Large Ensemble"<br>(Performing 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.


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 AI Jarreau.) Students analyzed form and other features of an African dance song and a Japanese folk song.


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."
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."


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.

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.


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.

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.

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


 "Musical Texture" Block are found on the CD-ROM version of this report.
 "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.

| Percentage of Eighth Graders <br> Receiving Various Scores |  |
| :--- | :--- |
| Score Level | Percentages |
| 4-Developed |  |
| 3-Adequate |  |
| 2-Limited | $\mathbf{8 9}$ |
| 1-Inadequate | $\mathbf{4}$ |
|  | $\mathbf{0 \%}$ |

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
叫
Listen to the first phrase and the second phrase. If the second phrase is the same as the first phrase, mark the letter $\mathbf{A}$ in the space below. If the second phrase is different from the first phrase, mark the letter $\mathbf{B}$ in the space

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


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 $\mathbf{A}$ in the space below. If the third phrase is different from the first phrase, mark the letter $\mathbf{B}$ in the space

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

## (A)



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

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


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 asaxophone
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?


Steps going up
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 Devebped

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.


\section*{Percentage of Eighth Graders Receiving Various Scores <br> | Score Level | Percentages |  |
| :--- | :---: | :---: |
| 4-Developed | $\mathbf{3 2}$ |  |
| 3-Adequate | $\mathbf{1 1 )}$ |  |
| 2-Limited | $\mathbf{1 7}$ |  |
| 1-Inadequate | $\mathbf{4 0}$ | $\vdots$ |
|  | $\mathbf{0 \%}$ | $\mathbf{5 0 \%}$ |
|  |  | $100 \%$ |}

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?


Percentage of Eighth Graders Answering Correctly: 55\%


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


## Sample Student Response Receiving a Score of Adequate



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


What is the musical (Italian) name for the symbol in circle 1?
$\qquad$
plane


| Percentage of Eighth Graders |
| :--- |
| Receiving Various Scores |
| Score Level |
| 3-Adequate |
| 2-Limited |
| 1-Inadequate |

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.

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 ?An eighth noteA 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.

回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 threelevel guide that allowed for partial credit. The following sample student responses represent Inadequate, Limited, and Adequate scores.

| Percentage of Eighth Graders |
| :--- |
| Receiving Various Scores - |
| Measure $\mathbf{1}$ |
| Score Level |
| 3-Adequate |
| 2-Limited |
| 1-Inadequate |

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.

| Percentage of Eighth Graders |
| :--- |
| Receiving Various Scores - |
| Measure $\mathbf{2}$ |
| Score Level |
| 3-Adequate |
| 2-Limited |
| 1-Inadequate |

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


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## 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


0Audio 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.

## Writen Musical Stimulus for Sample Question 9



Percentage of Eighth Graders Receiving Various Scores Ending

| Score Level | Percentages |
| :---: | :---: |
| 2-Acceptable | 23 |
| 1-Unacceptable 77 |  |
|  |  |

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

$\qquad$
$\qquad$


## 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 enoughThis 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.

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 ana $i$ as nit supposed

 to.
## 30 on row she sang the note to

 high.
## 33 she sang the last note too long.

## 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.

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.


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.


\section*{Percentage of Eighth Graders Receiving Various Scores <br> | Score Level | Percentages |  |
| :--- | :---: | :---: |
| 4-Developed | $\mathbf{3 2}$ |  |
| 3-Adequate | $\mathbf{4 3}$ |  |
| 2-Limited | $\mathbf{2 2}$ |  |
| 1-Inadequate | $\mathbf{3}$ |  |
|  | $\vdots$ |  |
|  | $\mathbf{0 \%}$ | $\mathbf{5 0 \%}$ |
|  | $\mathbf{1 0 0 \%}$ |  |}

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.

## at has a avoid moucheni lect and it is etinivente it is etipingrele.

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 instrumentaI arrangement of Brahms' "Lullaby." The recording used was from CBS CD \#M DK 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.

## Sample Student Response to Question 12 Receiving a Score of Adequate

What would be a common way to use this music?


To provide music for tap dancing
To help young children fall asleep
(C)

To help people feel patriotic
To cheer on sports teams
Describe one specific feature of the music that makes it useful for the purpose you selected.


| Percentage of Eighth Graders |
| :--- |
| Receiving Various Scores |
| Score Level |
| 4-Developed |
| 3-Adequate |
| 2-Limited |
| 1-Inadequate |

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

Adequate. This response was scored as Adequate because the student correctly answered the multiplechoice 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.


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.

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## 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?
4
(B) 4

4

8



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.

## 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

## 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.


| Percentage of Eighth Graders <br> Receiving Various Scores |  |
| :--- | :--- |
| Score Level | Percentages |
| 3-Adequate | 10) |
| 2-Limited | 1-Inadequate |

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

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

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 |
| Score Level |
| 3-Adequate Percentages |
| 2-Limited |
| 1-Inadequate |

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

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

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

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


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

## Sample Student Response to Question 16 Receiving a Score of Adequate



## 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 constructedresponse 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 constructedresponse 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-

[^2]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

## Upper Level

(296) Identify country of origin of koto music and provide specific reason why.
(282) Provide a specific description of a characteristic feature of a spiritual.
(277) Provide likely style period for Handel aria and give limited justification.
(256) Provide appropriate tempo description or tempo marking for "Shalom, My Friends."
(247) Identify one element of jazz present in "Rhapsody in Blue."
(239) Identify genre of Joplin piano rag and describe its features.
(238) Identify the term "monophony" describing musical texture of a recording.
(208) Identify the size of an interval between two printed notes.
(205) Describe a specific difference between two different orchestrations of a piece.
(202) Select a line drawing reflective of the texture of an example of music.
(196) Identify the term for a fermata symbol.
(191) Describe the meaning of a fermata symbol.
(182) Label all 8 notes of a C Major Scale in treble clef.
(181) Either identify name of piano dynamic marking or explain its meaning.
(180) Identify 2 different ways music is used in movies or television shows.
(179) Identify a half note symbol.
(179) Provide one limited description of either mood, melodic instruments, or another feature of an Ives' variation.

## Middle Level

(171) Select correct time signature for printed music.
(163) Identify a bass clef symbol.
(150) Identify an appropriate use for Brahms' "Lullaby" and explain why.
(150) Label 1 note of a C Major Scale in treble clef.
(150) Determine the length of the introduction of "Shalom, My Friends."
(144) Provide three specific critical comments about a performance of "Michael Row the Boat Ashore."
(128) Identify an appropriate event for a Sousa march, and provide at least some explanation.

## Lower Level

(116) Provide a limited explanation of why spirituals were important in people's lives.
(110) Provide one critical comment about a performance of "Michael Row the Boat Ashore."
(105) Provide a limited description of a characteristic feature of a spiritual.
(89) Identify one way music is used in movies or television shows.
(60) Correctly identify at least one of three phrases as being the same or different from an example.

[^3]
## 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.?

## 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 Iullabies 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-tolearn 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 upperlevel 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.

[^4]In-School Student Activities

Out-of-School Student 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.

## Figure 2.8 <br> Groups of Student Profiles on the Music Responding Scale

Creating Mean for Lower, Middle, and Upper Responding Score Groups

## Mean Percent Correct Creating Score

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

## Figure 2.9 <br> Performing Mean for Lower, Middle, and Upper Responding Score Groups

Groups of Student Profiles on the Music Responding Scale

## Mean Percent Correct Performing Score



## 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 followindividually by appointment follow-
ing 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.


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 inschool 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.
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 2.13

$\square$

## 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. mest.

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, <br> how often does your teacher do each <br> of the following things? | Average <br> Performing <br> Score |
| :--- | :--- |
| Play Music for |  |
| You to Listen to |  | \% Students | (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 39 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? <br> Play Music for You to Listen to | Average Creating Score (0-100\%) |
| :---: | :---: |
| Almost Every Day 28) | 33 |
| Once or Twice a Week 13) | 42 |
| Once or Twice a Month (10) | 42 |
| Never or Hardly Ever (14) | 33 |
| I Don't Have Music | 30 |
| Ask You to Play <br> Instruments <br> \% Students | Average Creating Score (0-100\%) |
| Almost Every Day (16) | 50 |
| Once or Twice a Week 6) | 41 |
| Once or Twice a Month 6) | 35 |
| Never or Hardly Ever 32 | 31 |
| I Don't Have Music <br> 40 $\qquad$ <br> 0\% 50\% 100\% | 30 |

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.

|  |  | Average <br> Creating <br> Score |
| :--- | :---: | :---: |
| Ask You to Make up |  |  |
| Your Own Music |  |  |$\quad$ \% Students | $0-100 \%)$ |
| :--- |

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

[^5]Average Creating Score -100\%)

35
37
35
31

## Average <br> Creating

 Score (0-100\%) 39 3739
37
30
IDon't Have Music
Ask You to Write
Down Music
Almost Every Day
Once or Twice a Week
Once or Twice a Month
Never or Hardly Ever
I Don't Have Music
-
$\qquad$

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



[^6]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



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

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.


[^0]:    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.

[^1]:    5 National Assessment Governing Board. (1994). Arts education assessment framework (pre-publication ed.) Washington, DC: Author, 44. Available online at http://www.nagb.org

[^2]:    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 management terms, utilize knowledge and skills in ways similar enough to be summarized on a single scale.

[^3]:    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.

[^4]:    7 A percentile is a scale score below which a specified percentage of the population scored. For example, the 25 th 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.

[^5]:    SOURCE: National Center for Education
    Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

[^6]:    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.

