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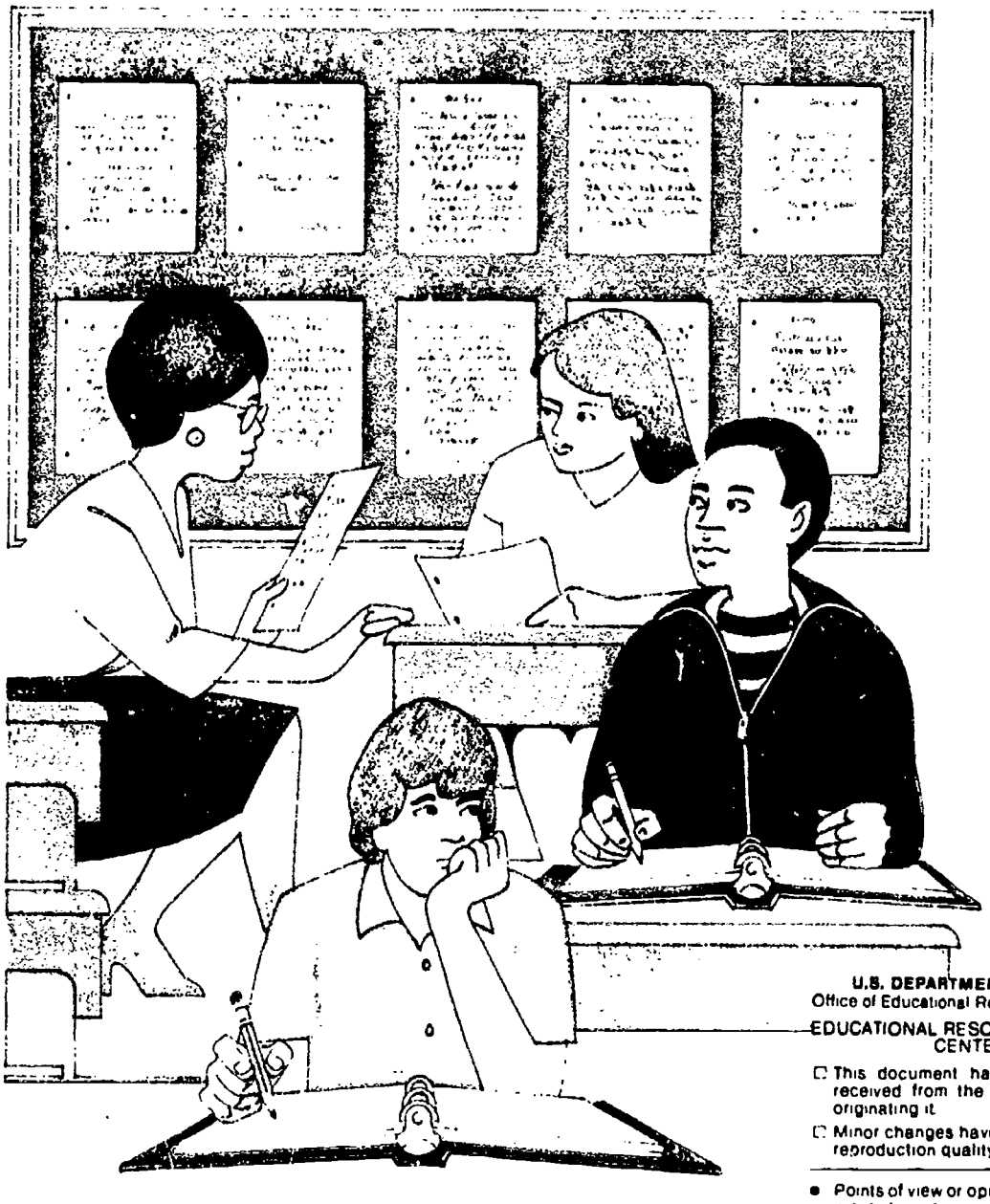
ABSTRACT

To evaluate the writing abilities of American students, the National Assessment of Educational Progress (NAEP) asked nationally representative samples of fourth, eighth, and twelfth graders--approximately 20,000 students in all--to perform a variety of informative, persuasive, and narrative writing tasks. In addition, students were asked about the amount and types of writing they did in and out of school, the nature of the instruction they received, and their writing strategies. To supplement this information, the English or language arts teachers of eighth graders participating in the assessment completed a questionnaire on these students and the instruction they had been provided. In the informative writing task, most fourth graders (81%) wrote at least minimally acceptable story summaries, while 74% to 84% of the eighth graders and 79% to 83% of the twelfth graders wrote minimal or better responses to two analysis tasks. In the persuasive writing task, most students (65-88%) at all three grades provided at least minimal responses. Similar to the informative writing results, elaborated responses to the persuasive tasks were rare. Students tended to perform better in the imaginative narrative tasks than on the persuasive tasks. Eighty-one percent of the fourth graders wrote minimal or better responses, while 80% to 87% of the eighth and twelfth graders generated minimal or better responses to the personal narrative task. Assessment highlights also include information on: (1) writing instruction; and (2) effects of response time on performance. (Extensive tables of data and figures are included; a procedural appendix and an appendix containing additional data are attached.) (NKA)

THE NATION'S REPORT CARD

# Learning to Write in Our Nation's Schools:

## INSTRUCTION AND ACHIEVEMENT IN 1988 AT GRADES 4, 8, AND 12





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## What is The Nation's Report Card?

The Nation's Report Card, the National Assessment of Educational Progress (NAEP), is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969-70, assessments have been conducted periodically in reading, mathematics, science, writing, history/geography, and other fields. By making objective information on student performance available to policymakers at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement is collected under this program. NAEP guarantees the privacy of individual students and their families.

NAEP is a congressionally mandated project of the National Center for Education Statistics, the U.S. Department of Education. The Commissioner of Education Statistics is responsible, by law, for carrying out the NAEP project through competitive awards to qualified organizations. NAEP reports directly to the Commissioner, who is also responsible for providing continuing reviews, including validation studies and solicitation of public comment, on NAEP's conduct and usefulness.

In the 1988 Amendments, Congress created the National Assessment Governing Board (NAGB) to formulate the policy guidelines for NAEP. The board is responsible for selecting the subject areas to be assessed, which may include adding to those specified by Congress; identifying appropriate achievement goals for each age and grade; developing assessment objectives; developing test specifications; designing the assessment methodology; developing guidelines and standards for data analysis and for reporting and disseminating results; developing standards and procedures for interstate, regional, and national comparisons; improving the form and use of the National Assessment; and ensuring that all items selected for use in the National Assessment are free from racial, cultural, gender, or regional bias.

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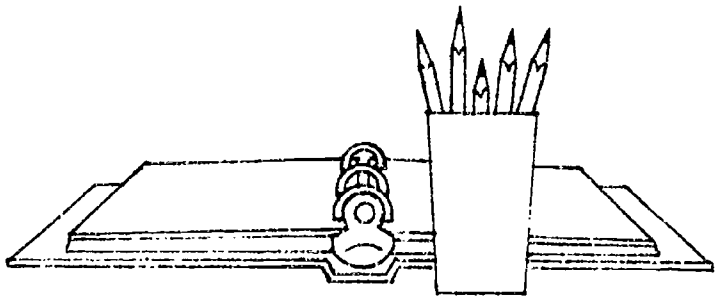

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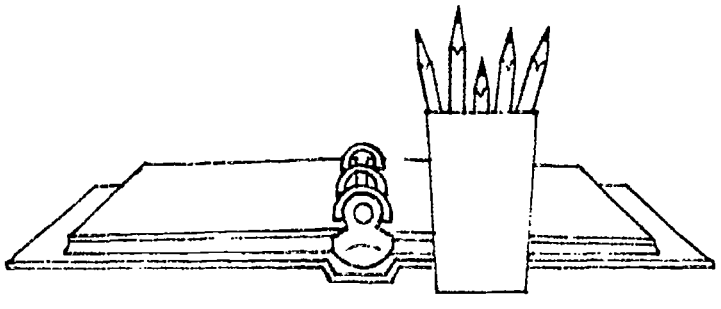
# Learning to Write in Our Nation's Schools:

## INSTRUCTION AND ACHIEVEMENT IN 1988 AT GRADES 4, 8, AND 12



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THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

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# OVERVIEW

This document from The Nation's Report Card offers insight into the writing performance of American schoolchildren, based on a survey conducted in 1988 by the National Assessment of Educational Progress (NAEP). How much and how well do American students write? What approaches are being used in writing classrooms? What are the characteristics of better writers? These questions and others are explored in the chapters that follow.

To evaluate the writing abilities of American students, NAEP asked nationally representative samples of fourth, eighth, and twelfth graders — approximately 20,000 in all — to perform a variety of informative, persuasive, and narrative writing tasks.[1] For example, students may have been asked to write a report on their television viewing habits, a narrative describing their favorite story, or a letter convincing a city council member to support or oppose the creation of bike lanes on the streets. In addition, they were asked about the amount and types of writing they did in and out of school, the nature of the instruction they received, and their writing strategies.

To supplement the information reported by students, the English or language arts teachers of eighth graders participating in the assessment were given a questionnaire on these students and the instruction they had been provided. The teachers were asked to identify the ability level of the student's writing class, and to provide detailed information on his or her usual grades, assignments, and instructional experiences. Thus, for the first time, NAEP can establish a direct link between students' writing performance and the instruction they receive, as reported by their teachers.

[1] In 1988 NAEP also conducted an assessment of changes in writing achievement at grades 4, 8, and 11 since 1984. The results of the trend assessment are summarized in Arthur N. Applebee, Judith A. Langer, Ina V.S. Mullis, and Lynn B. Jenkins, *The Writing Report Card, 1984-88* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1990). This new report is based on writing prompts and evaluation methods that are different from those used in the writing trend assessment.

## Writing Instruction

- According to their teachers, approximately three-quarters of the eighth-grade students were receiving an hour or less of writing instruction each week. Black and Hispanic students received more writing instruction than White students.

- The amount of writing that eighth- and twelfth-grade students reported doing for English class was limited. Less than two-thirds of the students in either grade reported they were asked to write one or two paragraphs at least once a week, and only one-third reported writing one or two page papers this often. Just 14 percent of the eighth graders and 9 percent of the twelfth graders reported being asked to write a paper of three or more pages on a weekly basis.

- More than one-third (39 percent) of the eighth-grade students had teachers who assigned analytic or interpretive essays or themes on a monthly basis. Higher percentages of these students were assigned reports or summaries (45 percent), imaginative or literary pieces of writing (52 percent), and journal or learning logs (45 percent) this often.

- The recent interest in encouraging writing across the curriculum does not appear to have been carried out in practice. Half the twelfth-grade students reported they had written no more than two papers for school during the previous six weeks, while just one-fifth reported they had written five papers or more.

- Students' English/language arts teachers seemed quite eclectic in their approaches to writing instruction. The teachers of more than 80 percent of the eighth-grade students reported giving some emphasis to writing process instruction as well as to grammar or skill-based instruction — emphases that many writing educators view as dichotomous.

- At all three grades, the majority of students reported receiving systematic instruction on structured approaches to the writing process. Students with greater exposure to writing process instruction appeared to have higher average writing proficiency than their peers with more limited exposure, but the difference in performance between the two groups was not statistically significant.

- According to teachers and students alike, eighth-grade students frequently received feedback on their papers, addressing such aspects of their writing as ideas, organization, and mechanics. However, teachers reported giving somewhat more attention to students' ideas and to what they did well in their papers than was reported by their students.

- Teachers reported some differentiation of instruction according to students' writing achievement. Students in low ability classes were more likely than those in high ability classes to have teachers who reported giving short assignments and exercises that focused on the mechanics of written English.

## Student Performance

- Eighth-grade students wrote better, on average, than fourth-grade students, and twelfth-grade students wrote better than eighth-grade students. But even at grade 12, on almost all of the writing tasks most students were unable to give adequate responses -- that is, responses judged likely to accomplish the purpose of the writing task.

- On the informative writing tasks, no more than 47 percent of the students at any grade wrote adequate or better responses.

- On the persuasive writing tasks, no more than 36 percent of the students at any grade level wrote adequate or better responses.

- On the narrative writing tasks, performance was somewhat better. Even on these tasks, however, no more than 56 percent of the students at any grade level wrote adequate or better responses.

- Across the entire set of writing tasks administered, performance varied considerably. At grade 4, the percentage of adequate or better responses ranged from 9 to 47 percent across tasks; at grade 8, the range was from 14 to 51 percent; and at grade 12, it was from 24 to 56 percent.

- At each grade, Black and Hispanic students' average writing proficiency was significantly lower than that of White students, and males' average writing proficiency was lower than that of females. Students attending schools in advantaged urban communities tended to write better than their counterparts attending schools in disadvantaged urban communities.

## Effects of Response Time on Performance

- When students were given 20 or 30 minutes to complete the writing tasks, rather than 10 or 15 minutes, some improvement in writing performance was evident.

- Performance on narrative tasks increased most when additional time was provided, while performance on informative tasks changed least.

- Additional time led to relatively small but consistent gains in writing performance for White students, but to inconsistent changes in performance for Black and Hispanic students.

- The amount of overt planning that students did was largely unaffected by the amount of time provided.

The information provided by students and teachers gives a detailed picture of the extent to which and the ways in which writing is being taught in our nation's schools, and the picture is not encouraging. Students across the grades appear to spend relatively little time each week either engaged in writing or learning to write. Most students — and particularly those in lower ability classes — reported that what time they did spend on writing was primarily devoted to short assignments. Overall levels of writing performance remain low, and even doubling the time available for students to work on their responses to some of the writing tasks in the assessment did little to alter this overall picture of student performance. Further, the gap in achievement between high-socioeconomic status (SES) groups and low-SES groups remains large.

All of these findings suggest that the need for reform in writing instruction is with us still.

## A Note on Interpretations

The Nation's Report Card presents information on the performance of groups of students, not individuals. Two measures of achievement are included in this report: students' average writing performance on the NAEP writing scale, and the percentages of students performing at various levels of accomplishment for each writing task given. Because the achievement data are based on samples, they are necessarily estimates. And, like all estimates based on surveys, they are subject to sampling error as well as measurement error. NAEP uses a complex procedure to compute standard errors that estimates the sampling error and other random error associated with the observed assessment results. The standard errors were used to construct the 95 percent confidence intervals indicated in the tables and figures in the report.

Interpreting the assessment results — attempting to put them into a real-world context, advancing plausible explanations, and suggesting possible courses of action — will always be an art, not a science. No one can control all the possible variables affecting a survey. Nor can they all be considered in any particular interpretation of the data, since any particular relationship between students' achievement and their characteristics and experiences may be explained in more than one way. While the interpretive comments in this report represent the best professional judgments of NAEP staff and consultants, they must stand the tests of reason and critical discussion. It is hoped that the conjectures offered here will stimulate the debate needed to achieve a more thorough understanding of the results, and to motivate educators and the general public to implement appropriate action.

This report is divided into two sections, each providing a somewhat different perspective on students' writing achievement. Section One focuses on the relationships between students' overall writing performance and various factors — including the characteristics of their home and school environments and their writing strategies and instructional experiences. For students in grade 8, reports on instruction are accompanied by information obtained from their teachers through a detailed questionnaire. This provides a unique opportunity to compare the observations of teachers and students on current emphases and practices in writing classrooms and to relate this information to students' writing performance.

Section Two of the report takes a closer look at students' performance on the many different types of writing tasks included in the 1988 assessment. Also discussed are the results of the special study designed to measure the effects of increased response time on students' performance in the assessment.

# I

# WHO WRITES BEST?

## Individual, Home, School, and Instructional Factors Related to Writing Performance

The first part of this report is composed of three chapters that explore the relationships between average writing performance, using the NAEP writing scale, and various factors of interest. Chapter 1 compares overall writing performance across the grades and across subpopulations defined by race/ethnicity, gender, and region, as well as a variety of home and school characteristics. In the second chapter, the approaches that students reportedly use to help them manage the writing process are discussed, and the use of these approaches is compared with overall performance in the assessment. Chapter 3 reviews students' and teachers' reports on writing instruction, providing information on the types of assignments teachers give and the instructional approaches they use.

# 1 Writing Performance for the Nation and Subpopulations

Previous NAEP writing assessments and other studies have revealed that students' writing performance varies greatly according to the nature of the writing task undertaken. For example, students may write cohesive and well-articulated responses to one assignment and struggle with another. Because performance on any single writing task does not give an adequate representation of writing abilities overall, NAEP administers a variety of writing tasks in its assessments.

Each student participating in the 1988 writing assessment was given a few different tasks, designed to measure their informative, persuasive, or narrative writing skills. Their responses were evaluated using scoring guides that defined levels of task accomplishment, each of which was assigned a numeric value (Not Rated = 0, Unsatisfactory = 1, Minimal = 2, Adequate = 3, and Elaborated = 4).[2]

To study the growth of students' writing achievement across the grades and to compare the writing achievement of various subpopulations, an overall measure of writing performance is used. For this purpose, NAEP developed the Average Response Method (ARM) to summarize the assessment results on a common scale, ranging from 0 to 400.[3] Based on the scoring procedures used, an ARM score of approximately 200 for a given population indicates that, on average, students in that population wrote (or would have written) minimal responses to the assessment tasks. The levels of writing achievement are shown in TABLE 1.1.

[2]These levels of task accomplishment are defined in Table 1.1.

[3]The ARM procedure provides estimates of students' task accomplishment scores for *all* of the writing tasks, based on their scores on the tasks they actually performed. The actual and estimated scores (of 0 to 4, as described above) are then averaged across the entire set of tasks and converted to the 0 to 400 scale by multiplying the average score by 100. The Procedural Appendix gives further information on the ARM procedure.

TABLE 1.1

## Levels of Writing Achievement, Based on Responses to Informative, Persuasive, and Narrative Writing Tasks

| | |
|---|---|
| 400 | **Elaborated.** Students providing elaborated responses went beyond the essential, reflecting a higher level of coherence and providing more detail to support the points made. |
| 300 | **Adequate.** Students providing adequate responses included the information and ideas necessary to accomplish the underlying task and were considered likely to be effective in achieving the desired purpose. |
| 200 | **Minimal.** Students writing at the minimal level recognized some or all of the elements needed to complete the task but did not manage these elements well enough to assure that the purpose of the task would be achieved. |
| 100 | **Unsatisfactory.** Students who wrote papers judged as unsatisfactory provided very abbreviated, circular, or disjointed responses that did not even begin to address the writing task. |
| 0 | **Not Rated.** A small percentage of the responses were blank, indecipherable, off task, or contained a statement to the effect that the student did not know how to do the task; these responses were not rated. |

## National Results

The national performance results from the 1988 NAEP writing assessment are presented in TABLE 1.2.

As expected, eighth graders wrote better than fourth graders, and twelfth graders wrote better than eighth graders, on average. Even at the highest grade, however, students' overall writing performance remained closer to the minimal level than to the adequate level.

TABLE 1.2

## Average Writing Achievement for the Nation and Demographic Subpopulations

| | Average Proficiency | | |
|---|---|---|---|
| | Grade 4 | Grade 8 | Grade 12 |
| **Nation** | 190.9 (1.0) | 209.5 (0.9) | 224.2 (1.3) |
| **Race/Ethnicity** | | | |
| White | 197.6 (1.3) | 216.0 (1.0) | 230.5 (1.5) |
| Black | 168.8 (1.9) | 187.5 (2.2) | 200.7 (2.3) |
| Hispanic | 178.2 (2.0) | 192.4 (2.1) | 204.9 (3.5) |
| **Gender** | | | |
| Male | 184.4 (1.3) | 200.9 (1.4) | 212.5 (1.4) |
| Female | 197.5 (1.3) | 218.5 (1.2) | 234.8 (1.8) |
| **Region** | | | |
| Northeast | 194.5 (2.6) | 213.2 (2.1) | 229.9 (3.6) |
| Southeast | 183.3 (2.0) | 203.1 (1.9) | 218.1 (2.6) |
| Central | 192.0 (2.2) | 210.6 (1.9) | 224.0 (1.7) |
| West | 193.8 (1.9) | 211.0 (1.7) | 224.1 (2.1) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value. Note: More detailed information on these subpopulations can be found in the Procedural Appendix.

In viewing the average performance results, it should be remembered that averages mask variations in performance within each grade --- that is, some students in any given grade perform far better or worse than their peers. The Data Appendix at the back of this report presents the average writing proficiencies of different percentiles of the student population, providing a view of the range of writing performance within each grade. More specifically, three-quarters of the twelfth-grade students had average proficiency at or above 192, half had proficiency at or above 225, and one-quarter had proficiency at or above 257. A mere 5 percent of these students had average proficiency that was at or above 304.

## Results for Subpopulations

TABLE 1.2 also compares the average writing proficiency of students belonging to subgroups of the population defined by race/ethnicity, gender, and region.

**Race/Ethnicity.** At all three grades, White students tended to write better than Black or Hispanic students. Because the increases in average writing performance across the grades were similar for White and Black students, the gap between these two groups remained constant from grade 4 to grade 12. Black fourth graders' performance was 29 scale points below that of White students, on average, and this difference was essentially the same at grades 8 and 12, where the differences were 29 and 30 points, respectively. In contrast, Hispanic fourth graders performed 19 points below their White counterparts, on average, and this gap increased slightly at grades 8 and 12 (to 24 and 26 points, respectively). Thus, although Hispanic fourth graders tended to write better than their Black counterparts, the performance gap between Black and Hispanic students was reduced from grade 4 to grade 12.

**Gender.** At grade 4, girls tended to write better than boys, and this gender performance gap increased gradually across the grades. The difference between the average proficiency of males and females was approximately 13 points at grade 4, 18 points at grade 8, and 22 points at grade 12.

**Region.** At grades 4 and 8, students in the Northeast, Central region, and West tended to perform comparably in the writing assessment; they also tended to have somewhat higher average writing proficiency than students in the Southeast. By grade 12, students in the Northeast performed better than students in the Central region and the West, who performed better than students in the Southeast.

**Home Environment.** In previous national assessments in different subject areas, positive relationships have been evident between certain characteristics of the home environment and students' academic achievement. TABLE 1.3 presents the average writing proficiency of fourth-, eighth-, and twelfth-grade students according to their parents' highest level of education, the number of reading materials available in the home, and whether their mother worked outside the home for pay, either part-time or full-time.

TABLE 1.3

# Average Writing Proficiency by Characteristics of the Home Environment

| | Grade 4 | | Grade 8 | | Grade 12 | |
|---|---|---|---|---|---|---|
| | Percent | Average Proficiency | Percent | Average Proficiency | Percent | Average Proficiency |
| **Parents' Highest Level of Education** | | | | | | |
| Less than high school | 4.9 | 177.7 (2.9) | 8.0 | 196.6 (2.1) | 7.5 | 208.9 (3.0) |
| Graduated high school | 15.3 | 186.3 (1.9) | 26.7 | 205.1 (1.8) | 24.8 | 218.9 (1.9) |
| Some college or graduated college | 45.8 | 200.9 (1.5) | 57.7 | 216.4 (1.5) | 65.7 | 229.4 (1.8) |
| **Number of Reading Materials in the Home** | | | | | | |
| 0 to 2 items | 28.0 | 177.9 (1.4) | 17.2 | 193.2 (1.7) | 12.0 | 201.1 (2.7) |
| 3 items | 34.7 | 192.1 (1.2) | 29.2 | 206.6 (1.5) | 25.9 | 222.7 (2.3) |
| 4 or more items | 37.3 | 200.1 (1.4) | 53.6 | 216.6 (1.2) | 62.2 | 229.8 (1.5) |
| **Mother Works at a Job for Pay** | | | | | | |
| Yes (full- or part-time) | 70.2 | 192.0 (1.0) | 72.7 | 211.1 (1.6) | 71.0 | 225.9 (2.0) |
| No | 27.6 | 189.9 (1.8) | 24.6 | 209.8 (1.6) | 24.5 | 224.5 (1.9) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value. Note: "Parents' Highest Level of Education" is a composite variable, developed from responses to two questions on the highest level of education attained by each parent. The composite results reflect the highest level of education attained by either parent. The response percentages for this variable and for "Mother Works at a Job for Pay" do not total 100 because some students reported they did not know the answer to the questions or did not live with their parents. "Reading Materials in the Home" is a composite variable, developed from responses to four questions, asking whether or not they had access to a newspaper, magazine, encyclopedia, or dictionary at home.

At all three grades, there is evidence of a positive relationship between parents' level of education and students' writing proficiency. Students whose parents reportedly had some post-secondary education performed better in the 1988 writing assessment than those whose parents had a high-school education or who left high school before graduating.

A positive relationship is also evident between support for literacy in the home and students' writing proficiency. Students were asked about the presence of books, newspapers, magazines, and an encyclopedia at home. At all three grade levels, students who had more of these reading and reference materials at home demonstrated higher writing proficiency, on average, than students from homes in which fewer of these items were available.

Students whose mothers worked outside of the home tended to perform comparably to students whose mothers did not.

**Television Viewing and Homework.** Excessive television viewing is often blamed for weak academic performance, while time spent on homework is usually considered beneficial. To examine the relationship between these factors and writing proficiency, NAEP asked students to report on their television viewing habits, the amount of time spent on homework each week, and the number of pages read each day for homework and in school. TABLE 1.4 summarizes students' responses to these questions and relates this information to their average writing proficiency.

At all three grades, excessive television viewing (six or more hours per day) appeared to be negatively related to writing achievement. Approximately one-quarter of the fourth graders reported excessive amounts of television viewing each day (6 hours or more), while 17 percent of the eighth graders and 7 percent of the twelfth graders reported this amount of viewing.

TABLE 1.4

# Average Writing Proficiency by Time Spent Viewing Television and Doing Homework, and Amount of Reading

| | Grade 4 | | Grade 8 | | Grade 12 | |
|---|---|---|---|---|---|---|
| | Percent | Average Proficiency | Percent | Average Proficiency | Percent | Average Proficiency |
| **Hours Spent Viewing Television Each Day** | | | | | | |
| 0 to 2 | 30.1 | 196.0 (1.5) | 28.6 | 215.4 (1.7) | 51.9 | 228.1 (1.8) |
| 3 to 5 | 42.6 | 196.2 (1.3) | 54.6 | 211.9 (1.1) | 41.3 | 223.0 (1.4) |
| 6 or more | 27.3 | 177.5 (1.4) | 16.7 | 191.8 (1.6) | 6.8 | 203.1 (2.9) |
| **Time Spent on Homework Each Day** | | | | | | |
| None assigned | 17.1 | 189.7 (1.7) | 4.7 | 191.5 (2.8) | 9.0 | 209.6 (3.3) |
| Didn't do | 3.6 | 168.7 (4.3) | 5.5 | 185.1 (3.0) | 8.8 | 202.4 (2.9) |
| 1/2 hour or less | 33.6 | 190.9 (1.5) | 20.0 | 206.0 (1.6) | 20.3 | 221.8 (1.7) |
| 1 hour | 27.1 | 195.4 (1.7) | 42.7 | 212.4 (1.3) | 33.6 | 227.4 (1.6) |
| 2 hours | 18.6 | 190.5 (2.0) | 19.1 | 217.0 (1.4) | 18.3 | 232.3 (2.5) |
| More than 2 hours | — | — | 8.1 | 212.9 (2.4) | 10.2 | 236.3 (2.8) |
| **Number of Pages Read Each Day** | | | | | | |
| 0 to 5 | 23.9 | 180.6 (1.7) | 31.2 | 200.3 (1.4) | 31.7 | 210.9 (1.8) |
| 6 to 10 | 23.4 | 193.1 (1.7) | 31.7 | 209.9 (1.8) | 25.8 | 225.3 (1.4) |
| 11 to 15 | 14.2 | 195.9 (2.0) | 16.3 | 217.6 (2.0) | 14.6 | 232.7 (3.1) |
| 15 to 20 | 15.9 | 196.3 (1.8) | 10.1 | 217.0 (2.6) | 12.1 | 234.7 (2.9) |
| More than 20 | 22.6 | 193.2 (1.6) | 10.7 | 216.9 (2.1) | 15.8 | 233.8 (2.5) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value. **Note:** The " " symbol indicates that a particular response option was not included in the question given at that grade level.

In general, students who reported they did homework tended to have higher writing proficiency than students who said they did not have homework or did not do it. As in previous assessments, however, the amount of homework associated with the highest proficiency varied by grade level. At grade 4, the highest average proficiency was demonstrated by students who reported spending an hour on homework each day. At grade 8, the best writers tended to be those who reported doing two hours of homework daily, while at grade 12, the highest proficiency was demonstrated by students who reported doing more than two hours of homework daily.

A similar pattern was found between students' writing proficiency and the number of pages read each day in school and for homework. At all three grades, students who reported reading 0 to 5 pages every day for school and homework had substantially lower proficiency, on average, than their counterparts who reported doing more reading.

**School Characteristics.** In addition to studying the relationship between students' writing proficiency and their demographic characteristics, home environment, and uses of time beyond school, NAEP studied the performance of students attending different types of schools. TABLE 1.5 presents information on the assessment performance of students in different types of schools, school programs, and school communities.

TABLE 1.5

## Average Writing Proficiency by School Characteristics

| | Grade 4 | | Grade 8 | | Grade 12 | |
|---|---|---|---|---|---|---|
| | Percent | Average Proficiency | Percent | Average Proficiency | Percent | Average Proficiency |
| **Size and Type of Community** | | | | | | |
| Advantaged Urban | 14.1 | 206.8 (2.6) | 11.4 | 222.7 (3.7) | 10.2 | 237.2 (7.6) |
| Disadvantaged Urban | 10.3 | 172.1 (2.9) | 8.6 | 189.2 (2.9) | 9.2 | 206.5 (3.9) |
| Rural | 10.6 | 188.3 (3.2) | 10.5 | 210.6 (3.2) | 10.1 | 225.3 (3.0) |
| **Type of School** | | | | | | |
| Public | 89.5 | 189.4 (1.0) | 88.7 | 206.7 (0.8) | 85.8 | 222.1 (1.2) |
| Nonpublic | 10.5 | 203.4 (4.1) | 11.2 | 231.3 (2.8) | 14.2 | 236.7 (3.4) |
| **Type of High-School Program** | | | | | | |
| Vocational/Technical | — | — | — | — | 8.4 | 207.6 (2.6) |
| General | — | — | — | — | 35.0 | 213.5 (1.4) |
| Academic | — | — | — | — | 56.6 | 233.6 (1.5) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value. Note: The response percentages for the variable "Size and Type of Community" do not total 100 because only extreme types are reported here. Nonpublic schools include private and Catholic schools. More detailed information on these subpopulations is provided in the Procedural Appendix.

Across the grades, students attending schools in advantaged urban communities tended to demonstrate better writing proficiency than students attending schools in rural or disadvantaged urban areas. Students in nonpublic schools outperformed those in public schools at all three grades, and those enrolled in academic programs outperformed those in general or vocational/technical programs. These results are likely to reflect a complex interaction among various factors, including socioeconomic status, program characteristics, and student selection.

## Summary

Across all the grades and subpopulations examined, students' average writing performance was limited to a relatively narrow range on the proficiency continuum. Within this relatively narrow range, writing proficiency does appear to vary according to students' characteristics, including their race/ethnicity, gender, and region of the country. On average, White students wrote better than Black or Hispanic students, females wrote better than males, and fourth- and eighth-grade students in the Northeast, Central, and West regions wrote better than their counterparts in the Southeast. Performance also varied according to the characteristics of the schools that students attended. Those attending nonpublic schools and schools in advantaged communities tended to outperform their counterparts in other types of schools, and students enrolled in academic programs tended to outperform those enrolled in general or vocational/technical programs — reflecting, at least in part, the interaction of socioeconomic, school, and student selection factors.

Certain home and study characteristics also seem to be related to writing proficiency (either positively or negatively), and many of these can be influenced directly by schools and parents — for example, the availability of reading materials in the home, the amount of reading done for school, time spent on homework, and television viewing.

# 2 Managing the Writing Process

Every piece of writing has a history of its own; it grows and changes over time based upon its intended purpose, audience, and the complexity of its message as well as upon the writing skill of its author. This process often begins well before the actual drafting of the piece, with the gathering, organizing, revising, and editing of information, and can continue well after the "final" words have been penned. In any specific writing experience, these processes intermingle, with one or the other capturing the writer's focus at a particular moment in time, in response to the developing whole.

The recent emphasis on instruction in writing processes is well known. It has been a central part of the writing reform movement of the 1980s and, thus, it is important to explore the extent to which teachers use process-oriented instructional practices in their classrooms. These data are examined in Chapter 3. Further, it is important to study the extent to which students have learned to call upon relevant aspects of the writing process on their own, when they engage in different types of writing. For this reason, the 1988 assessment asked students a number of questions about their planning and revising strategies, and also analyzed evidence of process activities when their use was encouraged in the writing tasks.

## Planning

Twelfth-grade students were asked about two different aspects of planning, and their responses are summarized in TABLE 2.1. Approximately half (49 percent) said they usually considered their audience before they wrote, while 62 percent said they looked up information this often. Although writing does not always require looking up information, it frequently involves considering what the audience wants to know about the subject. It therefore seems surprising that 14 percent of the twelfth graders stated they almost never used this planning strategy.

TABLE 2.1

## Reported Use Of Planning Strategies, Grade 12

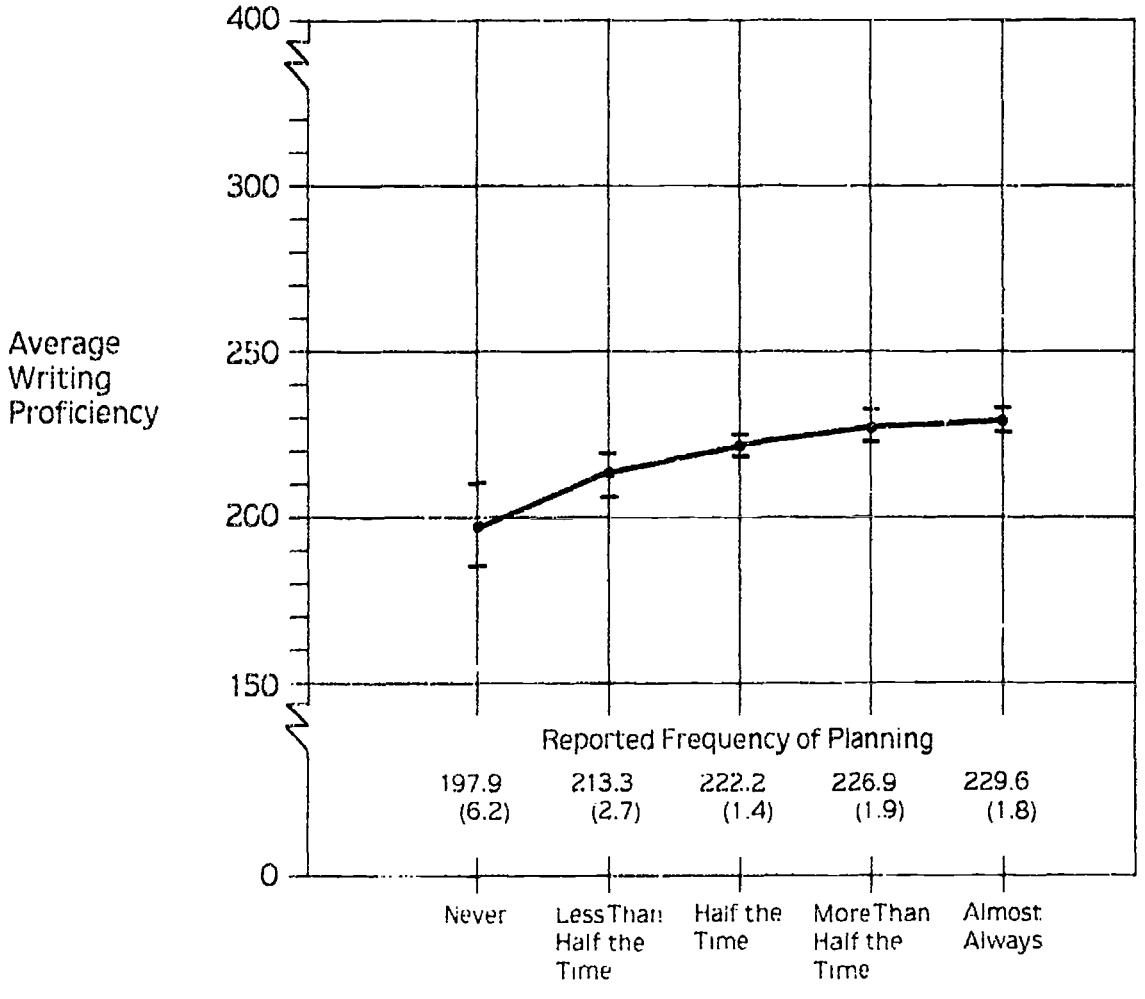
**How often have you done each of the following when you have written papers:**

| | Percentage of Students | | | | |
|---|---|---|---|---|---|
| | Almost Always | More Than Half the Time | About Half the Time | Less Than Half the Time | Never or Hardly Ever |
| Ask yourself what kinds of things people would like to know about the subject | 28.0 | 20.6 | 23.1 | 14.5 | 13.8 |
| Look up information in books, magazines, or newspapers | 38.1 | 23.4 | 20.3 | 12.3 | 5.8 |

To obtain a picture of students' overall use of planning strategies, NAEP averaged students' responses to the two planning questions identified in the previous table. FIGURE 2.1 displays the relationship between the average amount of planning reported by twelfth-grade students and their writing achievement. There appears to be a positive relationship between planning and writing performance, as students who said they engaged in planning more often demonstrated higher average writing achievement than their peers who reported less frequent planning.

FIGURE
# 2.1

## Relationship Between Students' Average Writing Proficiency and Their Use of Planning Strategies, Grade 12




Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value.

95% confidence interval

Because self reports provide only partial and indirect information on the use of writing process strategies, this assessment also gave students an opportunity to plan before they wrote. As noted in the overview, NAEP administered both shorter (10 or 15 minute) and longer (20 or 30 minute) versions of some tasks to permit an analysis of the effects of response time on writing performance. This special study also provided a chance to explore the impact of increased response time on the use of planning strategies. Each task in the assessment, long and short versions alike, was printed at the top of the page, while the remainder of the page was left blank for the students to make notes before writing. The writing itself began on the next page.

When they were not explicitly reminded to do so, almost none of the students — from 0 to 3 percent — used the blank space provided to plan their responses. In a persuasive task on recreation opportunities, students were reminded that they could use the blank space provided for planning their responses. NAEP's trained readers subsequently tabulated whether or not students had made notes or outlines. As shown in TABLE 2.2, only a small percentage of the eighth- and twelfth-grade students gave evidence of planning their responses to the task.

TABLE 2.2

## Visible Planning on Responses to Short and Long Versions of Recreation Opportunities Task, Grades 8 and 12

**Percentage of Students Who Made Notes or Outlines**

| | Grade 8 | Grade 12 |
|---|---|---|
| Short Version | 9.4 | 12.9 |
| Long Version | 11.8 | 18.1 |

Even when students were reminded to make preparatory notes before writing and provided the space to do so, relatively few took advantage of the opportunity. No more than 12 percent of the eighth graders and 18 percent of the twelfth graders jotted notes or made outlines before writing their responses to the Recreation Opportunities task. Though the provision of extra time was designed to encourage process activities, it appeared to have had very little effect on the amount of visible planning undertaken. Even at grade 12, doubling the writing time for this task increased the incidence of observed planning by only 6 percentage points.

## Revising and Editing Strategies

Three questions asked twelfth-grade students about their revising and editing strategies, and another three questions asked them about their concerns with word-level changes, writing mechanics, and the paper as a whole. Students' responses are presented in TABLE 2.3.

TABLE 2.3

### Students' Reports on the Use of Revising and Editing Strategies, Grade 12

**How often have you done each of the following to make your papers better?**

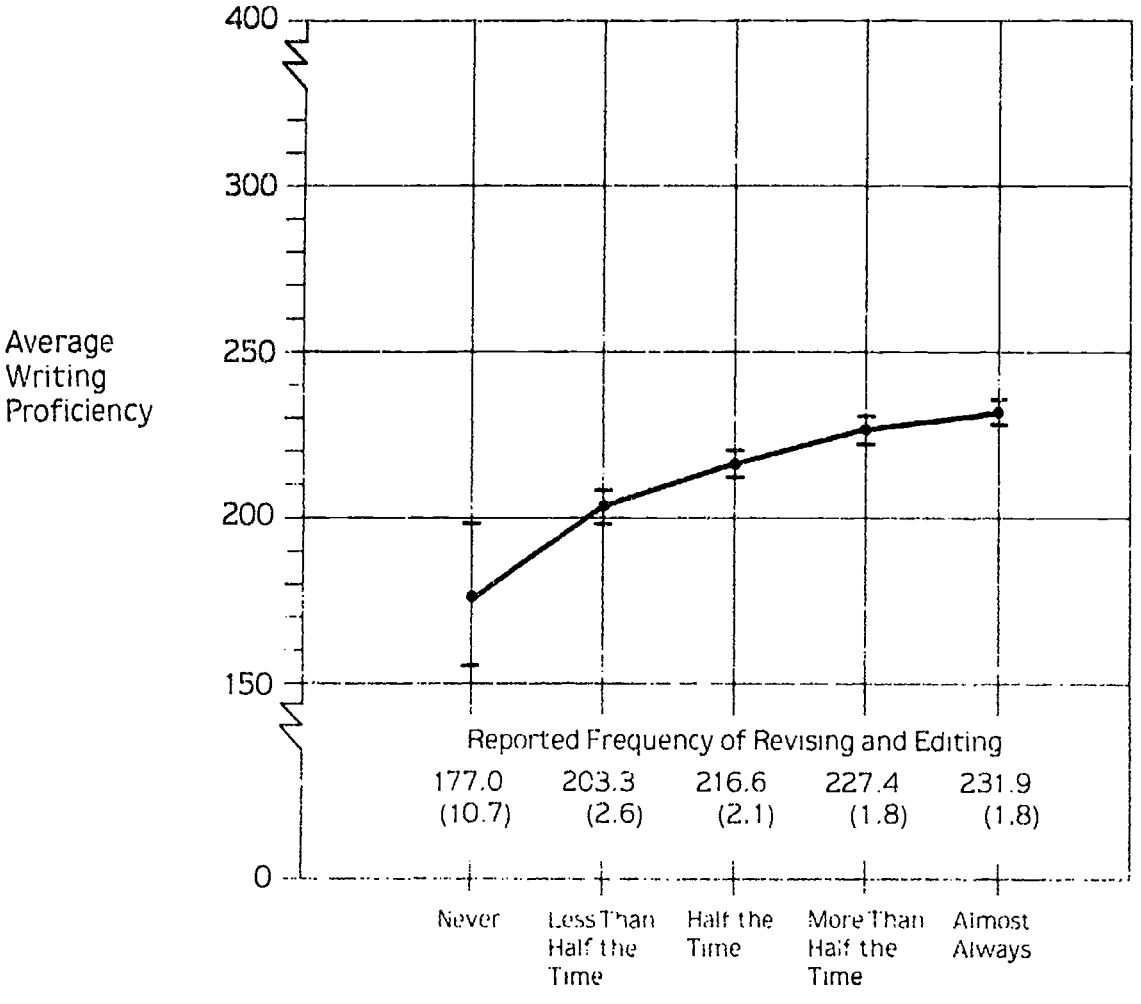
| | Percentage of Students | | | | |
|---|---|---|---|---|---|
| | Almost Always | More Than Half the Time | About Half the Time | Less Than Half the Time | Never or Hardly Ever |
| Add new ideas or information | 45.0 | 28.2 | 18.6 | 6.2 | 2.1 |
| Take out parts of the paper that you don't like | 41.1 | 25.9 | 18.7 | 10.2 | 4.1 |
| Change some words for other words you like better | 52.7 | 24.5 | 15.0 | 5.6 | 2.2 |
| Correct mistakes in spelling, punctuation, and grammar | 60.8 | 18.1 | 10.8 | 6.8 | 3.4 |
| Rewrite almost all of the paper | 26.8 | 16.4 | 16.8 | 23.3 | 16.8 |

Overall, the majority of twelfth graders reported using these revising and editing strategies more than half the time when they wrote. In general, the more intensive the changes, the less likely students were to make them. Thus, 79 percent reported correcting spelling, punctuation, and grammar in more than half of their papers, and between 67 and 77 percent reported revising or editing their papers this frequently. Less than half of the students (43 percent) reported that more than half the time, they rewrote almost the entire paper.

As with the planning questions described previously, NAEP averaged students' responses to the five questions on revising and editing to give an estimate of the overall frequency of these strategies. FIGURE 2.2 relates the average amount of revising reported by twelfth-grade students to their average writing proficiency. It appears that students who said they frequently revised and edited their work wrote better, on average, than did their classmates who reported less frequent use of such strategies.

FIGURE
**2.2**

## Relationship Between Students' Average Writing Proficiency and Their Reported Use of Revising and Editing Strategies, Grade 12




Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value.

95% confidence interval

In addition to asking students whether or not they used various revising and editing strategies as they wrote, NAEP evaluated the extent to which revising and editing was apparent in their responses to the assessment tasks. The layout of certain tasks provided students with space to revise and edit their work, and the prompts reminded them to review their work and make any changes they thought would improve their papers. Readers subsequently marked whether or not students appeared to have made changes or corrections in their draft papers, ranging from minor or superficial changes to major structural revisions. Almost none of the students recopied their papers or wrote a second version that differed substantially from the first. However, many students made minor changes to their first drafts — for example, by crossing out, erasing, or inserting words, phrases, and sentences. TABLE 2.4 summarizes the evidence of first-draft revisions for tasks that were given with the usual time limit and for the same tasks given with twice as much response time.

TABLE 2.4

## Students' Use of Revising Strategies in Short and Long Versions of Writing Tasks, Grades 4, 8, and 12

| | Percentage of Students Who Made Evident Changes or Corrections | | | | | |
|---|---|---|---|---|---|---|
| | Grade 4 | | Grade 8 | | Grade 12 | |
| Type of Task | Short Version | Long Version | Short Version | Long Version | Short Version | Long Version |
| **Informative** | | | | | | |
| Report on an Animal | 76.5 | 81.1 | — | — | — | — |
| TV Viewing Habits | — | — | 73.1 | 76.3 | 71.9 | 80.0 |
| **Persuasive** | | | | | | |
| Spaceship | 72.6 | 77.0 | — | — | — | — |
| Recreation Opportunities | — | — | 71.5 | 73.4 | 71.8 | 72.8 |
| **Narrative** | | | | | | |
| Ghost Story | 80.0 | 85.7 | 81.5 | 81.6 | 79.2 | 79.7 |

At grade 4, between 73 and 80 percent of the students made corrections or revisions on their first-draft papers when they were given 10 minutes to respond to the writing tasks. Similarly, at grades 8 and 12, most students (72 to 82 percent) made corrections or changes in their responses to the 15-minute tasks. Like the planning behaviors discussed earlier, doubling the amount of response time for each task appeared to make little difference in the percentage of students who engaged in discernible revising or editing.

## Liking Writing

Students' attitudes toward what they do in school have strong effects on what they learn, and this is as true for writing as for other school subjects. Therefore, NAEP asked all students participating in the 1988 writing assessment how much they liked to write. Their responses are summarized in TABLE 2.5.

TABLE 2.5

### Students' Reports on Enjoyment of Writing, Grades 4, 8, and 12

**How often is the following statement true for you: I like to write.**

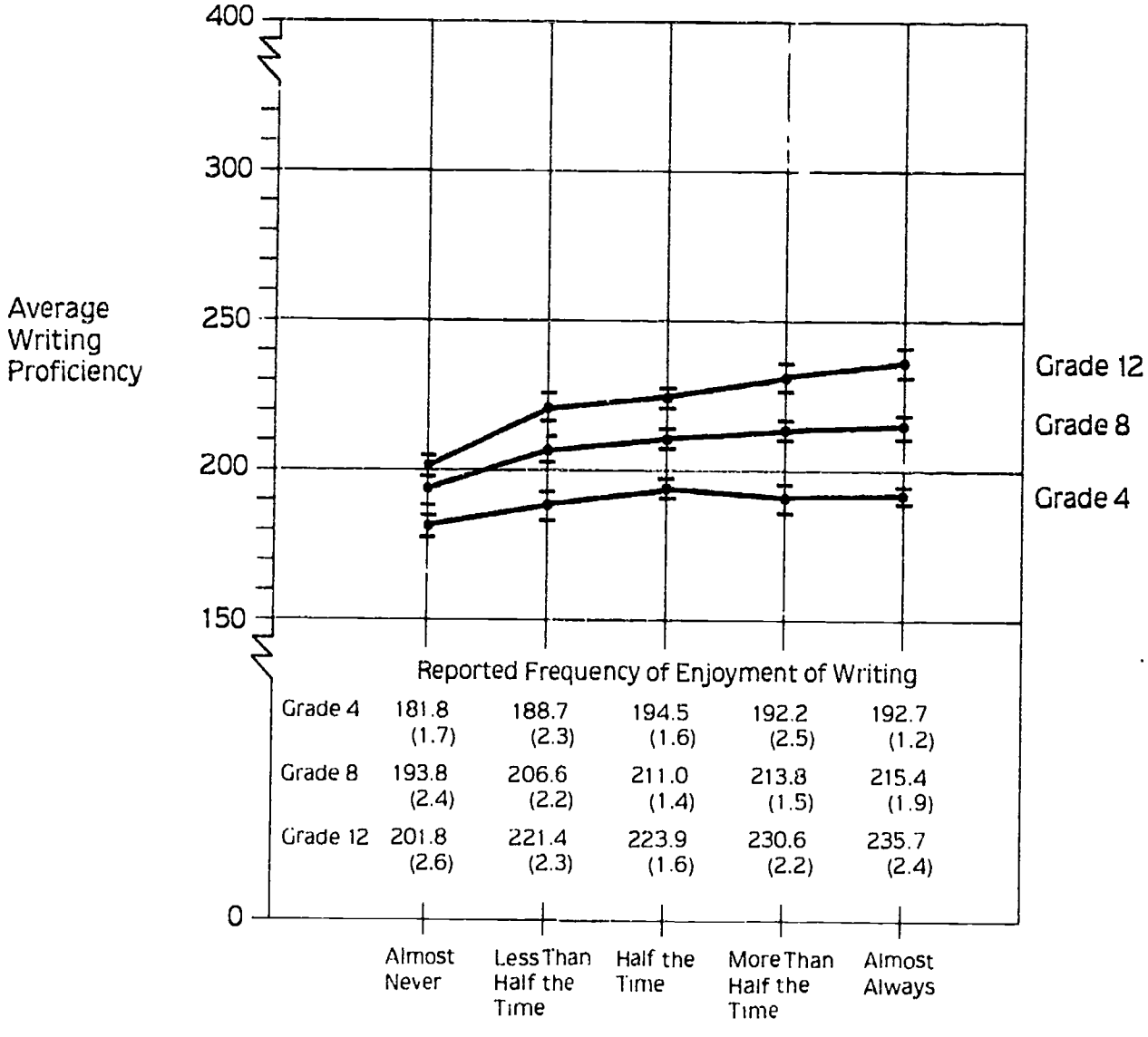
| | Percentage of Students | | |
|---|---|---|---|
| | Grade 4 | Grade 8 | Grade 12 |
| Almost always | 33.7 | 19.4 | 19.1 |
| More than half the time | 15.6 | 17.9 | 17.7 |
| About half the time | 22.7 | 32.3 | 31.6 |
| Less than half the time | 13.6 | 18.7 | 20.2 |
| Never or hardly ever | 14.3 | 11.7 | 11.4 |

Even at grade 4, only one-third of the students reported that they "almost always" liked to write, and this percentage diminished considerably between grade 4 and grades 8 and 12. This diminishing enthusiasm for writing in the higher grades has been observed in each previous NAEP assessment of writing.

Past writing assessments also have indicated that students who like to write tend to have higher writing proficiency than their peers who do not. As shown in FIGURE 2.3, the 1988 writing assessment results reinforce this pattern. Students who responded positively to the question on their enjoyment of writing tended to perform better than their peers who expressed more negative views, particularly at grades 8 and 12.

FIGURE
**2.3**

## Relationship Between Students' Average Writing Proficiency and Their Reported Enjoyment of Writing, Grades 4, 8, and 12




| | Almost Never | Less Than Half the Time | Half the Time | More Than Half the Time | Almost Always |
|---|---|---|---|---|---|
| Grade 4 | 181.8 (1.7) | 188.7 (2.3) | 194.5 (1.6) | 192.2 (2.5) | 192.7 (1.2) |
| Grade 8 | 193.8 (2.4) | 206.6 (2.2) | 211.0 (1.4) | 213.8 (1.5) | 215.4 (1.9) |
| Grade 12 | 201.8 (2.6) | 221.4 (2.3) | 223.9 (1.6) | 230.6 (2.2) | 235.7 (2.4) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value.

95% confidence interval

Given the evidence of a positive relationship between writing enjoyment and proficiency, it is disappointing to find that the extent to which students enjoy writing declines across the grades. However, this finding may be anticipated. Writing is a demanding process, and students may find it increasingly difficult (and therefore less enjoyable) as they develop an appreciation of the complexities of written communication.

## Summary

This analysis of students' writing behaviors indicates that the majority of students undertake at least some revising and editing when they write, though the changes they make tend to be relatively superficial — for example, deleting, inserting, or changing words, phrases, or sentences. Considerably fewer engage in notetaking or other overt planning behaviors. As research and theory have suggested for the past decade, use of these writing strategies is positively related to students' writing achievement. Better writers reported engaging in more planning and revising than their less successful peers.

At each grade level, enjoyment of writing appears to be positively linked to average writing proficiency. However, students in the higher grades were less likely than those in the lower grades to report that they liked to write.

# 3 Teachers' and Students' Reports on Writing Instruction

Information on the writing performance of American schoolchildren can perhaps best be understood when placed in the context of the instruction they receive. What kinds of writing are students at the various grade levels asked to do? How frequently are they asked to write? What feedback do they receive? NAEP asks questions of this nature in order to explore the relationships between schooling and writing achievement.

In the 1988 assessment, students at all three grades were asked a variety of questions about their writing experiences in school. This provides information on the curriculum from the students' perspective. To supplement the student data, the English/language arts teachers of eighth-grade students who participated in the writing assessment were asked to complete a questionnaire that requested detailed information on the instructional approaches they used.[1] The results provide insight into teachers' perspectives on the curriculum, which — as will be seen in this chapter — occasionally differ from students' perspectives. When the teacher data are combined with information on students' demographic characteristics and average writing achievement, the result is a rich account of what is being taught and how it relates to students' writing proficiency.

In addition to comparing the instructional experiences of eighth-grade students belonging to different demographic subpopulations, it is useful to study similarities and differences in the instructional experiences of students with varying levels of writing ability. As a basis for these comparisons, NAEP used information provided by the teachers of assessed eighth graders in response to two questions. The first question asked teachers to identify the grades each student typically received on his or her writing assignments, and the second question asked for information on the writing ability level of the student's English or language arts class. TABLE 3.1 provides information on the writing ability levels of eighth-grade students, as reported by their teachers.

[1]For eighth graders participating in the assessment, NAEP collected information from their English/language arts teachers. In the ensuing analyses, information on students' performance and demographic characteristics was linked with information provided by their teachers. Thus, the student — rather than the teacher — is the unit of analysis. This approach makes it possible to address questions such as "What percentage of the students have teachers who frequently respond to the ideas in their papers?" and "Do students who have such teachers tend to be better writers than their peers who receive less feedback on their ideas?" More detailed information on the teacher questionnaire is contained in the Procedural Appendix.

TABLE
3.1

## Teachers' Reports on the Writing Ability Levels of Students and Their Classes, Grade 8

| | Percentage of Students in Each Category |
|---|---|
| **What kinds of grades does this student get on writing assignments for your class?** | |
| Mostly A or about half A and half B | 32.5 |
| Mostly B | 17.7 |
| About half B and half C or mostly C | 33.7 |
| About half C and half D | 7.9 |
| Mostly D or below | 8.2 |
| **What is the writing ability level of the students in this class?** | |
| Mostly high ability | 17.0 |
| Mostly average ability | 45.5 |
| Mostly low ability | 22.5 |
| Mixed ability | 15.0 |

Although more than half of the eighth-grade students were reported to have grades that were approximately average and to be enrolled in classes of average or mixed writing ability, the groups at the extremes are of particular interest — that is, students who received high or low grades, and students in high or low ability classes. By comparing the instructional experiences of these students — for example, the types of assignments and feedback given by their teachers — it may be possible to detect differences in the way that more and less proficient writers are taught to write. In parts of this chapter, comparisons are made between students with the highest grades on their writing assignments (the 33 percent whose grades were mostly A or about half A and half B) and those with the lowest grades (the 8 percent whose grades were mostly D or below), and between students in classes of high writing ability (17 percent) and those in classes of low writing ability (23 percent).

## The Writing Students Do

Research indicates that "time on task" is a critical component of effective instruction. However, time alone is not enough, since the nature of the task determines what students will practice and learn. A number of questions included in the assessment provide information on both the amount and kinds of writing students are asked to do. The most extensive information is available for the eighth grade, where reports from teachers as well as students are available.

**Time Devoted to Writing.** TABLE 3.2 summarizes information provided by the English/language arts teachers of eighth-grade students on the amount of class time spent each week teaching students how to write and helping with their writing. The amount of time reported most frequently was 60 minutes per week, or roughly one class period out of five devoted to writing instruction. According to the teachers, Black and Hispanic students received more instruction and guidance than their White counterparts — an emphasis that may be an appropriate response to minority students' lower average writing proficiency.

TABLE 3.2

### Teachers' Reports on the Amount of Time Spent Each Week on Writing Instruction and Guidance, Grade 8

**How much time do you spend each week on instructing and helping students with their writing?**

| | Percentage of Students Receiving Each Amount of Writing Instruction | | | |
|---|---|---|---|---|
| | 30 Minutes or Less | 60 Minutes | 90 Minutes | 120 Minutes or More |
| **Nation** | 30.2 | 41.8 | 16.9 | 11.2 |
| **Students' Race/Ethnicity** | | | | |
| White | 31.3 | 42.7 | 14.3 | 11.7 |
| Black | 29.4 | 38.6 | 24.9 | 7.1 |
| Hispanic | 23.7 | 41.0 | 22.6 | 12.6 |
| **Students' Gender** | | | | |
| Male | 29.3 | 42.3 | 16.4 | 12.0 |
| Female | 31.1 | 41.3 | 17.3 | 10.3 |

TABLE 3.3 summarizes responses to a related question that asked the eighth-grade teachers how much time they expected their students to spend on writing assignments each week.

TABLE 3.3

## Teachers' Reports on the Amount of Time They Expected Students to Spend Each Week on Writing Assignments, Grade 8

**How much time do you expect students to spend on writing assignments each week?**

| | Percentage of Students Expected to Spend Each Amount of Time | | | |
|---|---|---|---|---|
| | Less Than an Hour | One Hour | Two Hours | Three Hours or More |
| **Nation** | 16.8 | 41.2 | 31.7 | 10.4 |
| **Students' Race/Ethnicity** | | | | |
| White | 17.5 | 43.1 | 29.7 | 9.8 |
| Black | 17.6 | 35.1 | 36.9 | 10.5 |
| Hispanic | 11.1 | 36.8 | 37.5 | 14.6 |
| **Students' Gender** | | | | |
| Male | 16.6 | 40.1 | 32.6 | 10.7 |
| Female | 17.1 | 42.2 | 30.7 | 10.0 |

Here, too, the typical amount of time reported was one hour — with Black and Hispanic students being expected to spend somewhat more time on writing than White students. Across the nation, 58 percent of the students had teachers who reportedly expected them to spend an hour or less on their writing assignments each week. Across all the subpopulations examined, just 10 to 15 percent of the students had teachers who asked them to devote three hours or more to writing on a weekly basis.

Students' reports on the amount of time they spent in English class learning to write are summarized in TABLE 3.4.

TABLE 3.4

## Students' Reports on the Amount of Time Spent in English Class Learning to Write, Grades 8 and 12

**About how much time do you spend in English class learning how to write (for example, writing paragraphs, stories, and papers)?**

| | Percentage of Students | | | | |
|---|---|---|---|---|---|
| | Most of the Time | More Than Half the Time | About Half the Time | Less Than Half the Time | None or Almost None of the Time |
| Grade 8 | 19.0 | 19.3 | 32.8 | 22.5 | 6.4 |
| Grade 12 | 19.4 | 20.4 | 30.3 | 22.0 | 7.9 |

Approximately one-third of the eighth- and twelfth-grade students reported spending about half of their English class time learning to write, and an additional 38 to 40 percent reported spending more than half of their class time on this endeavor. However, it should be recognized that students may overreport the amount of time actually spent learning to write — perhaps because they have less restricted views than their teachers on what constitutes learning to write.

**Length of Writing Assignments.** Writing instruction can focus on many different short assignments, or on less frequent longer work. To examine the kinds of writing students were being asked to perform, students and teachers were asked to report the length of the assignments given in English class. The information provided by students in grades 8 and 12 is summarized in TABLE 3.5. The responses of the eighth-grade language arts teachers to a related question are summarized in TABLE 3.6 — for all students and for those who typically received high or low grades on their writing assignments, as reported by their teachers.

TABLE
# 3.5

## Students' Reports on the Frequency of Writing Assignments of Specified Lengths, Grades 8 and 12

**How often are papers of the following lengths assigned in English class?**

| | Percentage of Students | | | |
|---|---|---|---|---|
| | Almost Every Day | Once or Twice a Week | Once or Twice a Month | A Few Times a Year or Less |
| One or two paragraphs | | | | |
| Grade 8 | 19.7 | 41.1 | 26.5 | 12.8 |
| Grade 12 | 16.4 | 42.4 | 24.5 | 16.7 |
| One or two pages | | | | |
| Grade 8 | 10.8 | 22.4 | 38.1 | 28.7 |
| Grade 12 | 4.4 | 25.9 | 45.8 | 23.9 |
| Three or more pages | | | | |
| Grade 8 | 3.5 | 10.7 | 25.1 | 60.6 |
| Grade 12 | 1.8 | 7.6 | 29.6 | 61.0 |

At both grades, the majority of the students (59 to 61 percent) reported writing papers of one or two paragraphs in length at least once per week. Longer writing assignments seemed to occur less frequently. Approximately 61 percent of the students in each grade reported that they never or rarely wrote reports of three or more pages. There were few differences between the grades in the amount of writing reported.

TABLE

# 3.6

## Teachers' Reports on the Length of Papers Assigned During the Last Four Weeks, Grade 8

**Have students completed papers of the following lengths as part of their writing instruction during the last four weeks?**

| | Percentage of Students Writing Four or More Papers of Specified Lengths | | |
|---|---|---|---|
| | All Students | Students with High Grades in Writing | Students with Low Grades in Writing |
| One or two paragraphs | 44.6 | 47.9 | 38.4 |
| One or two pages | 13.8 | 17.7 | 5.1 |
| Three or more pages | 5.9 | 9.2 | 1.6 |

The reports provided by the teachers suggest that eighth-grade students may be overestimating the amount of writing required for their English classes — or that they may not be completing their assignments. For example, only 45 percent of the students had teachers who reported that they had assigned at least four paragraph-length pieces of writing in the past four weeks, while 61 percent of the students had reported such writing was assigned at least weekly. Similarly, only 14 percent of the eighth-grade students had teachers who reported assigning at least four one- to two-page papers during the last month, but 33 percent of the students reported that they wrote papers of this length on a weekly basis.

When one compares the amount of writing assigned to students who typically received high marks on their writing with the amount assigned to students who typically received low marks, it appears that students who received higher grades were more likely to have been given writing assignments of all lengths.

Teachers were also asked to characterize the frequency with which they used several types of instructional techniques. These included exercises to familiarize students with mechanics, assignments to teach rhetorical models, frequent short writing exercises, less frequent but lengthier assignments, and papers requiring several drafts and revisions. TABLE 3.7 summarizes information on the uses of these techniques for all eighth-grade students and for those in high and low ability writing classes, as identified by teachers.

TABLE

# 3.7 Teachers' Reports on Writing Instruction Techniques, Grade 8

**How often do you focus on the following writing instruction techniques in this class?**

| | Percentage of Students Exposed to Technique More Than Half the Time | | |
|---|---|---|---|
| | All Students | Students in High Ability Classes | Students in Low Ability Classes |
| Exercises to familiarize students with the mechanics of written English | 58.7 | 46.7 | 58.7 |
| A variety of different assignments to teach rhetorical models | 38.0 | 43.0 | 33.7 |
| Frequent short assignments | 66.1 | 64.4 | 69.9 |
| Less frequent, lengthy assignments | 18.3 | 28.0 | 7.8 |
| Assignments with several drafts and revisions | 36.3 | 46.9 | 27.8 |

When asked how often they gave students exercises to familiarize them with the mechanics of written English and frequent short assignments, the teachers of 59 to 66 percent of the assessed students reported using these techniques more than half the time. Lengthy papers, assignments requiring several drafts and revisions, and exercises that emphasize a variety of rhetorical models were used less frequently.

Teachers' reports again indicated some differentiation of assignments for students of different levels of writing ability. Students in low ability classes were somewhat more likely to receive assignments that were short or that emphasized the mechanics of written English, while students in high ability classes were more likely to be given longer assignments, exercises that emphasized different rhetorical models, and papers involving several drafts and revisions.

**Types of Writing.** The objectives for the 1988 writing assessment emphasized that students should be proficient in a variety of types of writing. Accordingly, students in grades 8 and 12 were asked how often they completed particular types of writing assignments. Their responses are summarized in TABLE 3.8. Teachers' reports on the types of writing assigned at grade 8 are summarized in TABLE 3.9.

TABLE 3.8

## Students' Reports on Types of Writing Assigned for English Class, Grades 8 and 12

**How often do you complete the following types of assignments for English class?**

| | Percentage of Students | | | |
|---|---|---|---|---|
| | Once or Twice a Week | Once or Twice a Month | A Few Times a Year | Never |
| **Report or summary** | | | | |
| Grade 8 | 17.6 | 42.9 | 30.1 | 9.4 |
| Grade 12 | 15.5 | 38.4 | 37.5 | 8.6 |
| **Essay or theme in which you analyze or interpret** | | | | |
| Grade 8 | 11.9 | 34.5 | 32.1 | 21.4 |
| Grade 12 | 19.0 | 40.9 | 31.6 | 8.5 |
| **Imaginative or literary piece (story, poem, scene from a play, etc.)** | | | | |
| Grade 8 | 19.6 | 33.5 | 31.5 | 15.3 |
| Grade 12 | 17.3 | 29.6 | 35.3 | 17.7 |

TABLE

# 3.9 Teachers' Reports on Types of Writing Assigned, Grade 8

**How often do you give students the following types of assignments?**

| | Percentage of Students Receiving Each Type of Writing Assignment at Least Monthly | | |
|---|---|---|---|
| | All Students | Students in High Ability Classes | Students in Low Ability Classes |
| Report or summary | 44.8 | 41.6 | 39.0 |
| Analytic or interpretive essay or theme | 38.6 | 58.9 | 25.9 |
| Imaginative or literary piece | 51.9 | 61.9 | 43.0 |
| Journal or learning log | 45.3 | 53.3 | 47.2 |

At grade 8, 61 percent of the students said they did report or summary writing either weekly or monthly, while 53 percent reported they were assigned imaginative or literary writing and 46 percent reported they were assigned writing requiring analysis or interpretation this often. By grade 12, higher percentages of students reported frequent writings of essays or themes requiring analysis or interpretation (60 percent reported these assignments at least monthly), and fewer reported writing summaries or reports (54 percent) and imaginative or literary pieces (47 percent) this often.

Teachers' reports on the types of writing assigned at grade 8 were generally similar to students' reports; however, teachers were less likely than students to state that reports or summaries and analytic essays or themes were assigned either weekly or monthly. For example, 61 percent of the students said they wrote reports or summaries and 46 percent said they wrote analytic or interpretive essays at least once a month; however, just 45 percent of the students had teachers who said they assigned reports this often, and 39 percent of the students had teachers who said they assigned monthly essays or themes requiring analysis or interpretation. Journals and learning logs, which are often used for less formal assignments, were also assigned monthly to approximately 45 percent of the eighth-grade students, according to their teachers.

Teachers reported some differentiation of assignments for students of different levels of writing proficiency, as students in higher ability classes were more likely to be asked to write analytic papers as well as imaginative or literary ones.

**Writing in Social Studies or History.** Students write for many subjects other than English, and this work in other classes may have a considerable effect on their writing skills and strategies. Students in grades 8 and 12 were therefore asked three questions about the amount of writing assigned in their social studies or history classes. Their responses are summarized in TABLE 3.10.

TABLE 3.10

## Students' Reports on Writing Assignments in Social Studies or History Class, Grades 8 and 12

**How often are papers of the following lengths assigned in social studies or history class?**

| | Percentage of Students | | | | | |
|---|---|---|---|---|---|---|
| | At Least Weekly | | Monthly | | Yearly or Never | |
| | Grade 8 | Grade 12 | Grade 8 | Grade 12 | Grade 8 | Grade 12 |
| One or two paragraphs | 47.1 | 36.3 | 27.0 | 26.2 | 25.9 | 37.5 |
| One or two pages | 29.4 | 19.0 | 28.7 | 29.9 | 42.0 | 51.1 |
| Three or more pages | 16.2 | 8.0 | 18.2 | 16.9 | 65.7 | 75.1 |

Almost half (47 percent) of the students in grade 8 and 36 percent of the students in grade 12 reported writing one or two paragraphs for history class at least weekly, while just 16 percent and 8 percent, respectively, reported writing three or more pages this often. Thus, students who did report writing for class were likely to state that their assignments were relatively brief. Approximately two-thirds of the eighth graders and three-quarters of the twelfth graders reported that they were almost *never* assigned papers of three or more pages for their history classes.

**Relationship to Writing Proficiency.** Students in grade 12 were asked to identify the total number of reports and essays they had written for all subjects during the previous six weeks. Their responses are summarized in TABLE 3.11, which also includes the average writing proficiency for each amount of writing. Approximately half (51 percent) of the twelfth-grade students reported writing three or more reports or papers during the previous six weeks, while 38 percent reported writing only one or two during the same period and 11 percent reported having done no writing at all.

TABLE 3.11

## Students' Reports on Amount of Writing for All School Subjects, Grade 12

**How many reports or papers have you written during the last six weeks as part of any school assignment?**

| | Percentage | Average Proficiency |
|---|---|---|
| None | 11.1 | 208.1 (3.9) |
| 1 to 2 | 38.2 | 223.9 (1.7) |
| 3 to 4 | 31.1 | 229.7 (1.8) |
| 5 to 10 | 14.8 | 232.7 (2.7) |
| 11 or more | 4.7 | 232.3 (6.3) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of each population of interest is within ± 2 standard errors of the estimated value.

Average writing proficiency increased with the amount of writing done, as students who said they had written three or more papers for all of their school subjects over the previous six weeks tended to perform better in the assessment than students who reported less extensive writing. These data suggest that better writers tend to do more writing than their less proficient peers — or that those who do more writing tend to become better writers.

## Instructional Approaches

**Overall Approaches.** Educational researchers continually seek more information about effective approaches to instruction, as different approaches gain popularity at different times because of their relationship to specific learning goals. Recently, skill-based writing instruction, process-oriented writing instruction, integrated reading and writing instruction, and "writing to learn" have been popularly debated approaches.

To gather information on the extent to which these approaches are actually being used in classrooms, the eighth-grade students' teachers were asked to report the amount of emphasis they placed on each of these. Their responses, summarized in TABLE 3.12, suggest that students are exposed to a variety of approaches. About 59 percent of the students had teachers who reported they gave "very much" emphasis to grammar or skill-based writing instruction; 52 percent had teachers who said they emphasized writing process instruction. Fewer students had teachers who emphasized the integration of reading and writing (46 percent) or writing to learn (23 percent).

TABLE 3.12

### Teachers' Reports on Instructional Approaches, Grade 8

**To what extent do you use the following instructional approaches?**

| | Percentage of Students Receiving "Very Much" Emphasis | | |
|---|---|---|---|
| | All Students | Students in High Ability Classes | Students in Low Ability Classes |
| Grammar or skill-based instruction | 59.4 | 50.2 | 54.6 |
| Writing process instruction | 51.8 | 65.6 | 50.1 |
| Integrating reading and writing | 46.1 | 56.2 | 44.4 |
| Writing to learn | 23.4 | 27.5 | 21.3 |

Debates about writing instruction usually treat process-oriented approaches and skill-based writing instruction as incompatible, but the eighth-grade teachers viewed their instruction more eclectically. According to the teachers, 28 percent of the students received instruction that placed much emphasis on both of these approaches, and 84 percent were in classes that had at least "some" emphasis on both. Less than 1 percent of the students had teachers who reported little emphasis on either approach.

Some differentiation of instruction was evident for students in English/language arts classes of different performance levels. Overall, students in high ability classes were somewhat more likely than those in low ability classes to have an instructional emphasis on the writing process and the integration of reading and writing.

**Structured Writing Process.** Another set of questions asked eighth- and twelfth-grade students about the extent to which their teachers encouraged them to define an audience and purpose, gather information before they write, make notes or an outline, and revise their papers at least once before they are graded. Together, positive responses to these questions reflect a structured approach to the writing task. TABLE 3.13 summarizes students' responses. Parallel questions were asked of teachers at grade 8, and their responses are presented in TABLE 3.14.

It appears that the majority of students had teachers who emphasized a structured approach to writing. More than two-thirds of the eighth graders and approximately three-quarters of the twelfth graders reported that their teachers frequently (more than half the time or almost always) asked them to get information before writing and to revise their papers before they were graded. Approximately 59 percent of the eighth-grade students and 71 percent of the twelfth-grade students reported being asked to make notes or outlines this often, while still fewer students — 40 percent at grade 8 and 58 percent at grade 12 — reported being asked to define their audience and purpose this often.

These findings indicate that the emphasis on a structured approach to writing increased somewhat between grades 8 and 12.

TABLE 3.13

## Students' Reports on the Extent to Which Their Teachers Encouraged a Structured Approach to the Writing Process, Grades 8 and 12

**How often does your English teacher ask you to:**

| | Percentage of Students | | | | |
|---|---|---|---|---|---|
| | Almost Always | More Than Half the Time | About Half the Time | Less Than Half the Time | Never or Hardly Ever |
| **Get information before you write** | | | | | |
| Grade 8 | 52.5 | 16.1 | 12.8 | 9.1 | 9.5 |
| Grade 12 | 56.3 | 19.6 | 13.2 | 7.2 | 3.8 |
| **Make notes or an outline before you write** | | | | | |
| Grade 8 | 41.1 | 17.8 | 13.5 | 13.6 | 14.0 |
| Grade 12 | 50.9 | 19.7 | 13.9 | 10.0 | 5.5 |
| **Define your purpose and audience** | | | | | |
| Grade 8 | 20.7 | 19.4 | 18.8 | 17.1 | 23.8 |
| Grade 12 | 37.2 | 20.9 | 17.6 | 14.1 | 10.2 |
| **Revise the paper at least once before it is graded** | | | | | |
| Grade 8 | 54.7 | 16.3 | 12.0 | 8.5 | 8.6 |
| Grade 12 | 53.8 | 19.6 | 12.6 | 8.1 | 6.0 |

Like the student reports, information from teachers indicates that the majority of writing assignments involved structured attention to the writing process. Compared to the students' reports, however, teachers were less likely to report they asked students to gather information and more likely to report they asked students to define their purpose and audience. Altogether, 52 percent or more of the eighth graders were asked to use various process-related strategies more than half the time when they wrote, according to their teachers. Revision was the most popular strategy, as approximately half the students were asked to revise their papers for every writing assignment. Teachers' reports indicated some differentiation of instruction for students in classes of different achievement levels. Students in high ability classes were likely to be asked to define their purpose and audience and to revise their papers more frequently than their peers in low ability classes.

TABLE 3.14

# Teachers' Reports on Their Encouragement of a Structured Approach to the Writing Process, Grade 8

How often do you ask students to do the following when they write papers?

| | Percentage of Students Asked to Use Each Writing Process Strategy | | | | |
|---|---|---|---|---|---|
| | Almost Always | More Than Half the Time | About Half the Time | Less Than Half the Time | Never or Hardly Ever |
| **Get information before they write** | | | | | |
| All students | 25.2 | 26.4 | 23.7 | 17.0 | 7.6 |
| Students in high ability classes | 29.5 | 30.5 | 14.6 | 19.9 | 5.5 |
| Students in low ability classes | 27.0 | 25.6 | 24.8 | 16.0 | 6.6 |
| **Make notes or an outline before they write** | | | | | |
| All students | 32.7 | 29.9 | 15.3 | 17.1 | 5.0 |
| Students in high ability classes | 39.1 | 28.6 | 9.2 | 17.2 | 5.9 |
| Students in low ability classes | 31.7 | 28.4 | 19.5 | 17.4 | 3.0 |
| **Define their purpose and audience** | | | | | |
| All students | 35.1 | 24.8 | 17.3 | 15.6 | 7.1 |
| Students in high ability classes | 40.0 | 26.0 | 14.9 | 14.0 | 5.1 |
| Students in low ability classes | 31.6 | 23.8 | 14.8 | 20.5 | 9.3 |
| **Revise the paper at least once before it is graded** | | | | | |
| All students | 47.9 | 25.9 | 14.5 | 8.9 | 2.8 |
| Students in high ability classes | 54.7 | 27.1 | 8.8 | 9.3 | 0.1 |
| Students in low ability classes | 37.3 | 33.0 | 12.9 | 13.1 | 3.7 |

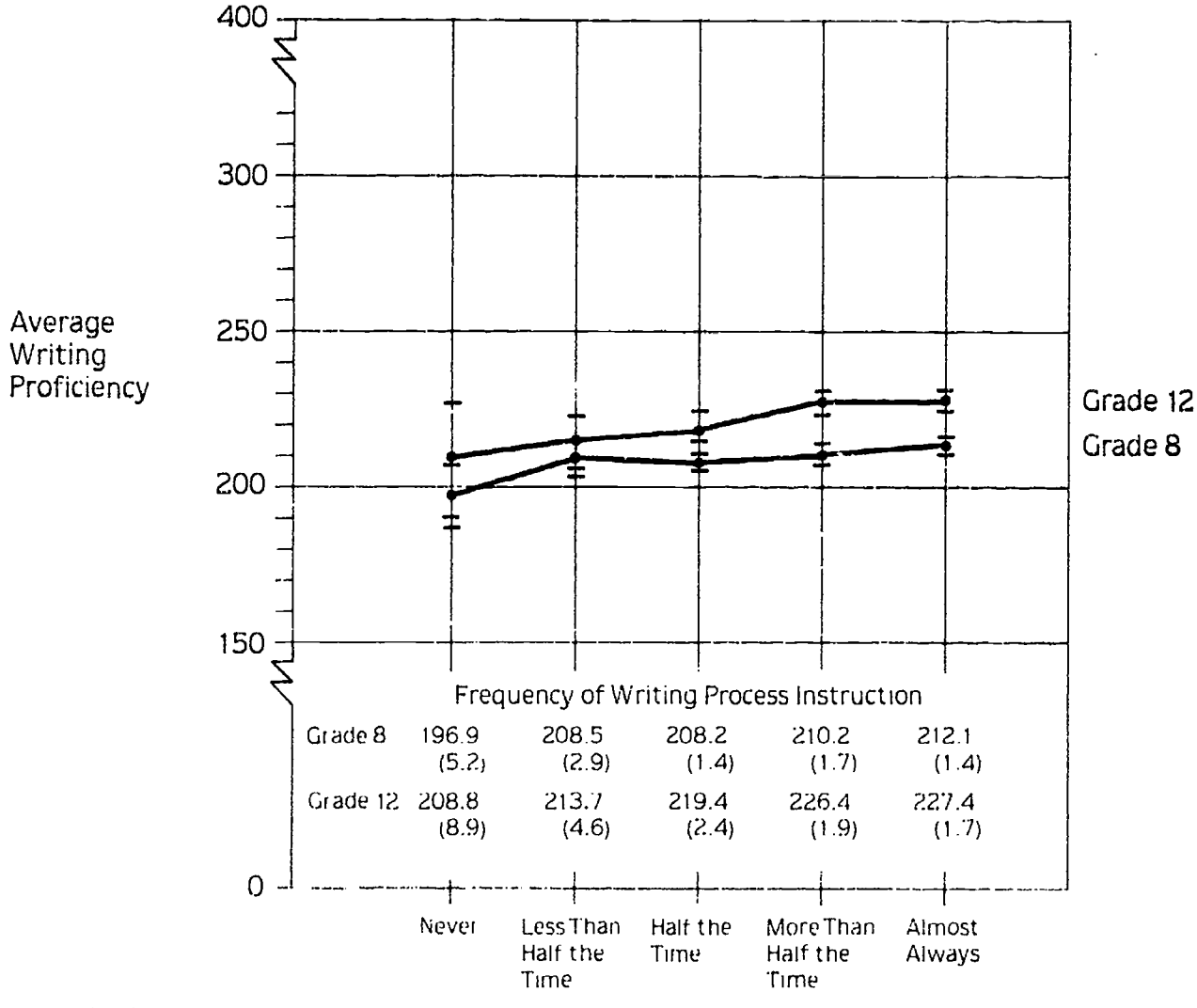
NAEP averaged students' responses to the questions on writing process instruction to obtain an overall estimate of the frequency with which these structured approaches to writing are emphasized.

FIGURE 3.1 relates the results of these analyses to students' performance in the assessment. At grades 8 and 12 alike, students who reported that their teachers emphasized a structured approach to the writing process more than half the time appeared to perform better in the assessment than students who reported less frequent emphasis, but the differences were not statistically significant.

FIGURE

# 3.1

## Relationship Between Students' Average Writing Proficiency and Their Reports on the Frequency of Writing Process Instruction, Grades 8 and 12




| | Never | Less Than Half the Time | Half the Time | More Than Half the Time | Almost Always |
|---|---|---|---|---|---|
| Grade 8 | 196.9 (5.2) | 208.5 (2.9) | 208.2 (1.4) | 210.2 (1.7) | 212.1 (1.4) |
| Grade 12 | 208.8 (8.9) | 213.7 (4.6) | 219.4 (2.4) | 226.4 (1.9) | 227.4 (1.7) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of the population of interest is within ± 2 standard errors of the estimated value

95% confidence interval

**Emphasis on Peer Response and Discussion of Work in Progress.** In addition to focusing on the writing process activities mentioned previously, recent reforms in the teaching of writing have emphasized the benefits of having students share work in progress. Specifically, educators have suggested the value of teaching students to read and respond to one another's work and to respond to comments from teachers. Peer review has several goals. It provides students with broader audiences for their work, offers a variety of models for approaching the writing task, and furnishes student writers with responses and suggestions for improving their writing. Reviews from the teacher can also serve many purposes, giving students encouragement, suggestions for new approaches, and contextualized instruction in developing particular skills.

Students at all three grades were asked how often they worked in pairs or small groups to discuss each other's writing, and how often they discussed work in progress with their teachers. Their responses are summarized in TABLE 3.15. The subsequent table (TABLE 3.16) provides comparative information based on the responses of eighth-grade teachers to similar questions.

TABLE 3.15

## Students' Reports on Writing Feedback: Peer Response and Discussion of Work in Progress, Grades 4, 8, and 12

| | Percentage of Students Who Reported Activity More Than Half the Time | | |
|---|---|---|---|
| **How often do you:** | **Grade 4** | **Grade 8** | **Grade 12** |
| Talk with your teacher about a paper while you are working on it | 49.1 | 40.3 | 49.2 |
| Work in pairs or small groups to discuss each other's writing | 19.2 | 25.1 | 24.7 |

TABLE 3.16

## Teachers' Reports on Writing Feedback: Peer Response and Discussion of Work in Progress, Grade 8

| How often do you ask students to: | Percentage of Students Asked to Engage in Activity More Than Half the Time | | |
|---|---|---|---|
| | All Students | Students in High Ability Classes | Students in Low Ability Classes |
| Talk with you about a paper while they are working on it | 58.3 | 64.9 | 56.3 |
| Work in pairs or small groups to discuss each other's writing | 30.6 | 39.0 | 27.1 |

Nearly half the students at grades 4 and 12 reported regularly talking with their teachers about work in progress, as did 40 percent of the students at grade 8. Peer discussions of one another's work were less frequent. One-quarter of the students in grades 8 and 12 and one-fifth of the students in grade 4 reported that they were asked to engage in such discussions more than half the time.

The teachers' reports on these activities at grade 8 were similar, though teachers were more likely to assert that they regularly talked with their students about work in progress; 58 percent of the students had teachers who reported doing so, compared with 40 percent of the students themselves. Teacher reports also suggested some differentiation of instruction for students in low and high ability classes. Students in high ability classes were apparently more likely to be asked to discuss work in progress with peers and teachers than were students in low ability classes.

Relationships between these approaches and writing proficiency are summarized in TABLE 3.17. The frequency with which students discussed work in progress with their teachers showed no consistent relationship to achievement at any of the grade levels. At grade 4, it appears that less proficient students were more likely to engage in peer response. At grade 8, no such relationship is evident. This pattern was less evident at grade 12, although students who reported often working in pairs or small groups tended to have lower proficiency than students who did so less than half the time.

TABLE 3.17

## Relationship Between Students' Average Writing Proficiency and Their Reports on the Frequency of Writing Feedback Activities, Grades 4, 8, and 12

| | Average Proficiency | | | | |
|---|---|---|---|---|---|
| | Almost Always | More Than Half the Time | About Half the Time | Less Than Half the Time | Never or Hardly Ever |
| **How often do you:** | | | | | |
| Talk with your teacher about a paper while you are working on it | | | | | |
| Grade 4 | 190.2 (1.4) | 191.3 (2.2) | 193.4 (1.9) | 190.6 (2.0) | 190.5 (1.9) |
| Grade 8 | 208.0 (1.4) | 208.6 (2.2) | 208.8 (2.2) | 212.8 (1.9) | 211.1 (1.3) |
| Grade 12 | 225.6 (2.0) | 223.6 (1.9) | 225.9 (2.3) | 225.4 (2.5) | 223.3 (2.7) |
| Work in pairs or small groups to discuss each other's writing | | | | | |
| Grade 4 | 183.4 (2.2) | 184.6 (2.4) | 193.2 (2.1) | 194.9 (1.5) | 191.3 (1.2) |
| Grade 8 | 210.2 (2.1) | 208.5 (2.2) | 210.9 (1.8) | 211.9 (1.9) | 208.4 (1.4) |
| Grade 12 | 220.2 (3.2) | 222.0 (2.2) | 223.9 (2.1) | 228.9 (1.8) | 224.7 (1.9) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that the average proficiency of each population of interest is within ± 2 standard errors of the estimated value.

**Responding to Completed Work.** In addition to providing guidance and feedback to students before and during their writing, teachers often comment on students' completed work. The responses they give are an important part of writing instruction, providing information about what is going well and what is not, as well as giving encouragement and direction. To determine the nature and extent of the feedback provided, students were asked to characterize the oral and written comments they received from teachers on their papers. Their responses to these questions are presented in TABLE 3.18.

Because there is often a disparity between the type and amount of support students feel they experience and the support that teachers believe they offer, NAEP also asked the eighth-grade teachers of assessed students to report on the feedback they provided. Results are presented in TABLE 3.19.

TABLE 3.18

## Students' Reports on Teachers' Comments on Writing Assignments, Grades 4, 8, and 12

**How often does your English teacher talk or write to you about:**

| | Percentage of Students Reporting Teacher Comments on Aspect More Than Half the Time | | |
|---|---|---|---|
| | Grade 4 | Grade 8 | Grade 12 |
| The ideas in your paper | 39.5 | 59.9 | 59.5 |
| The way you organized your paper | 31.8 | 58.7 | 55.0 |
| Your spelling, punctuation, and grammar | 39.7 | 74.6 | 55.4 |
| What you should do next time | 41.3 | 56.4 | 44.8 |
| What you did well | 52.7 | 67.5 | 66.0 |

TABLE 3.19

## Teachers' Reports on Comments on Students' Writing Assignments, Grade 8

**How often do you comment (orally or in writing) on the following things in students' writing assignments?**

| | Percentage of Students Receiving Comments on Aspect More than Half the Time | | |
|---|---|---|---|
| | All Students | Students with High Grades in Writing | Students with Low Grades in Writing |
| The ideas in the paper | 71.5 | 74.8 | 71.1 |
| The way the student organized the paper | 58.3 | 55.7 | 63.5 |
| Spelling, punctuation, and grammar | 72.1 | 63.5 | 86.1 |
| What the student should do next time | 57.6 | 52.4 | 72.7 |
| What the student did well | 82.5 | 89.0 | 73.8 |

There appears to be an increase in most types of teacher comments between grades 4 and 8, followed by a leveling off between grades 8 and 12. Slightly more than half the fourth-grade students said their teachers frequently provided feedback on what was done well in their papers, compared with approximately two-thirds of the eighth- and twelfth-grade students. While most students in the upper grades also reported frequently receiving each of the other kinds of feedback listed, fewer fourth graders perceived themselves as receiving this much support. Forty-one percent of these young students reported that more than half the time, their teachers gave suggestions about what to do next time and 32 percent reported that their teachers offered comments on the organization of their papers this often.

Eighth-grade teachers were more likely than their students to report they gave frequent attention to ideas (72 percent) and to what students did well in their papers (83 percent).

The kinds of comments that were apparently emphasized differed with students' writing proficiency: Better writers were more likely to receive comments about the positive aspects of their papers, while weaker writers were more likely to receive comments about problems. In particular, teachers were apparently more likely to give students with lower grades feedback on spelling, punctuation, and grammar, on organization, and on what to do next time. Conversely, students who had higher grades were more likely to receive feedback on what was done well.

**What Teachers Value.** Students quickly learn what their teachers value, particularly in giving grades. To examine the criteria they used, eighth-grade teachers were asked to identify how important five factors were in determining the grades they gave their students: mechanics, organization, ideas, length, and accomplishment of purpose. The responses of the students' teachers are presented in TABLE 3.20.

TABLE

# 3.20

## Teachers' Reports on Emphases in Grading Students' Papers, Grade 8

**How important are the following in determining how you grade student papers?**

| | Percentage of Students Whose Teachers Viewed Each Aspect as Very Important | | |
|---|---|---|---|
| | All Students | Students in High Ability Classes | Students in Low Ability Classes |
| Spelling, punctuation, and grammar | 46.0 | 47.0 | 40.6 |
| Organization and coherence | 78.0 | 83.6 | 71.8 |
| Quality and creativity of ideas | 65.0 | 77.4 | 56.5 |
| Length | 3.8 | 6.5 | 2.2 |
| Accomplishing the purpose of the writing task | 87.8 | 93.0 | 82.6 |

For most students, the extent to which they accomplished the purpose of the writing task was a very important factor to their teachers in determining grades. The organization and quality of ideas were reported next in order of importance, with spelling, punctuation, and grammar being very important to fewer of the teachers. Only 4 percent of the students had teachers who viewed the length of their papers as very important in grading.

According to the teachers, there was a great deal of consistency in the prioritization of these criteria with students of different levels of writing ability. However, in each case, a somewhat smaller p[illegible]ntage of the students in low ability classes had teachers who considered the criteria very important. The largest difference occurred for the emphasis on quality and creativity of ideas. More than three-quarters of the students in high ability classes had teachers who rated these criteria as very important, compared with 57 percent of the students in low ability classes.

**Teacher Training in Writing.** The results so far indicate some discrepancies between what teachers said they valued and the kinds of instruction they provided. Although the teachers of eighth-grade s[illegible]dents did not consider mechanics to be a very important component in the grades they gave, more students had teachers who said they commented on mechanics than on any other topic. Conversely, while many students had teachers who considered organization an important criteria in evaluating student writing, it received relatively little attention in the comments teachers reported making on student work — for students who received high grades on their writing assignments, as well as for those who received low grades.

When teachers' best intentions are not carried out, training and preparation is one of many variables that must be considered. This is particularly so in the field of writing, since writing instruction has only recently been incorporated as a part of inservice as well as preservice coursework. The assessment asked teachers at grade 8 whether they had received any special training in teaching writing. The amount of training reported by teachers is summarized in TABLE 3.21.

TABLE 3.21

## Teachers' Reports on Type of Training in Writing Instruction, Grade 8

**Have you received any special training in teaching writing?**

| | Percentage of Students Whose Teachers Reported Type of Training |
|---|---|
| No special training | 17.1 |
| Yes, inservice training | 56.2 |
| Yes, undergraduate course credit | 31.1 |
| Yes, graduate course credit | 31.8 |
| Yes, continuing education credit | 17.0 |

All but 17 percent of the students had teachers who reported they had at least some training in the teaching of writing, though inservice rather than preservice training seems to have been the primary vehicle. To some extent, this may reflect the aging of the teacher population, with primarily the newer teachers having received their writing training through undergraduate or graduate coursework.

**Recent Changes in Teaching Practices.** There have been many calls for changes in instruction over the past decade, including calls for more homework, better discipline, and more time spent on writing instruction. The teachers of the eighth-grade students assessed were asked whether these reform efforts had prompted any changes in their teaching practices during the previous three years, if they had been teaching that long. Their responses are summarized in TABLE 3.22.

TABLE 3.22

## Teachers' Reports on Changes in Teaching Practices Over the Past Three Years, Grade 8

**Which, if any, of the following changes have you made in your teaching practices over the past three years?**

| | Percentage of Students Whose Teachers Reported Change in Practices |
|---|---|
| Increased the amount of time devoted to writing instruction | 65.5 |
| Increased the amount of homework | 24.6 |
| Increased the amount of testing | 12.3 |
| Enforced stricter discipline | 26.1 |
| Enforced stricter attendance requirements | 6.8 |
| None of the . | 11.9 |

The percentages total more than 100 because teachers were asked to indicate all changes that applied

The amount of time devoted to teaching writing appeared to change most across time. Two-thirds of the students had teachers who reported devoting more time to writing instruction in 1988 than they had three years earlier. Other changes were reported much less frequently. One-quarter of the students had teachers who reported spending more time on discipline and increasing the amount of homework given; 12 percent had teachers who reported more testing; and 7 percent had teachers who reported stricter attendance requirements. Twelve percent of the students had teachers who reported making no changes of the types listed over the three-year period.

## Summary

The results discussed in this chapter present a mixed picture of current approaches to writing instruction. The information provided by teachers and students suggests that many classrooms are introducing students to a structured approach to their writing tasks — emphasizing gathering and organizing material, defining an audience and purpose, and revising written work before handing it in for a grade.

Two-thirds of the eighth-grade students had teachers who reported spending more time on writing instruction now than they did three years earlier. However, the total amount of writing that students reported doing remained relatively low, typically involving only a few paragraphs a week — hardly providing much of an opportunity to practice the writing process. Teachers' emphases and approaches seemed quite eclectic, with the vast majority stressing writing processes as well as mastery of the conventions of written English (i.e., grammar, punctuation, and spelling).

Teachers also appeared to differentiate their instructional practices according to students' writing abilities. Students in low ability classes were reportedly asked to write less frequently, to complete shorter assignments, and to focus more on the mechanics of written English than were their more proficient peers.

There appears to be a great deal of consistency between eighth- and twelfth-grade students' average writing proficiency and their perceptions of how frequently they get help. Better writers were more likely to have teachers who said that in their feedback on students' writing, they emphasized ideas and what was done well.

There was some tension between what teachers said they valued in grading students' papers and the kinds of feedback they provided in their classrooms. While according to teachers, mechanics were not typically a very important factor in grading, they appeared to be the primary type of feedback offered to the lowest performing students. Also, while organization was reportedly highly valued in assigning grades, it received relatively less focus than mechanics.

Finally, there were several interesting contrasts between the instructional activities and emphases reported by students and those reported by their teachers. On the one hand, it appeared that students overestimated the amount of writing required for their English classes — particularly the amount of report and essay writing assigned. On the other hand, teachers were more likely to perceive themselves as using a variety of instructional approaches — such as asking their students to define their purpose and audience before writing, talking with students about works in progress, and commenting on students' ideas and what they did well in their papers.

# II HOW WELL DO STUDENTS WRITE?

## Performance on a Variety of Writing Tasks

While the chapters in Part I studied the relationships between individual, school, home, and instructional variables and students' average writing performance, the chapters in Part II investigate students' performance on the individual writing tasks included in the 1988 assessment. As noted in the overview to this report, the assessment included a variety of informative, persuasive, and narrative writing tasks. In the regular versions of these tasks, fourth-grade students had 10 minutes to respond and eighth- and twelfth-grade students had 15 minutes to respond. In addition, some of the tasks were given in longer versions, in which fourth graders were given 20 minutes to respond and students in the upper grades were given 30 minutes. Because the assessment context provides very limited opportunities to review and revise one's work, students' responses to the assessment tasks were viewed as first draft writing and evaluated accordingly.

Students' responses to each writing task — both the long and short versions — were evaluated by trained readers who used detailed scoring guidelines. The guidelines defined four successive levels of task accomplishment: Unsatisfactory, Minimal, Adequate, and Elaborated. A small percentage of the responses were not rated because they were blank, illegible, totally off task, indecipherable, or contained a statement to the effect that the student did not know how to do the task. (The levels of writing task accomplishment are described in the Procedural Appendix.) The responses were not evaluated for fluency or for grammar, punctuation, and spelling, but information on these aspects of writing performance is contained in the writing trend report recently issued by NAEP.[5]

Chapter Four summarizes the range of student performance on the informative writing tasks included in the assessment, while Chapters Five and Six summarize students' performance on the persuasive and narrative tasks, respectively. Each chapter reviews the levels of task accomplishment for the various writing tasks given and, for illustrative purposes, gives examples of students' responses to selected tasks. The final chapter of the report summarizes the results of the special study designed to evaluate the impact of additional response time on students' ability to accomplish different writing tasks.

[5]Arthur N. Applebee, Judith A. Langer, Ina V.S. Mullis, and Lynn B. Jenkins, *The Writing Report Card, 1984-88* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1990).

# 4 Informative Writing

Informative writing skills are essential in many aspects of daily life. They are called upon, for instance, when one is drafting a business report, describing travel plans in a letter to a friend, or providing written instructions to help someone understand an unfamiliar subject or procedure. Because informative writing skills are so important and diverse, the 1988 NAEP writing assessment contained a series of tasks that asked students to generate various types of informative writing. Some tasks asked students to write based on their personal experience, knowledge, and interests, while others asked them to use information provided. Still others asked students to analyze information from their own experience or from a given passage.

## Reporting from Personal Experience and from Given Information

Two informative writing tasks included in the 1988 NAEP assessment asked fourth-grade students to use their background knowledge and personal experience to write a brief report, while another task asked these young students to generate a report based on information presented in a series of pictures. Brief summaries of these tasks appear below.

### Reporting from Personal Experience

***Summary of a Story:*** Tell about a favorite story so that someone who has not read it will understand what happened. (Grade 4)

***Report on an Animal:*** Identify a specific kind of animal and present relevant information about its qualities or characteristics. (Grade 4)

### Reporting from Given Information

***Plants:*** Summarize a science experiment depicted in a brief series of pictures showing different stages of a plant's growth. (Grade 4)

In addition to the percentages of responses rated at each level of task accomplishment, TABLE 4.1 presents the percentages of fourth-grade responses to these tasks that were rated minimal or better and adequate or better.

TABLE

# 4.1 Informative Writing: Reporting, Grade 4

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| **Reporting from Personal Experience** | | | | | | | |
| Summary of a Story | 6.0 | 12.8 | 60.9 | 18.7 | 1.5 | 81.2 | 20.3 |
| Report on an Animal | | | | | | | |
| 10-minute Version | 5.5 | 16.6 | 36.5 | 39.2 | 2.2 | 77.9 | 41.4 |
| 20-minute Version | 5.1 | 17.0 | 31.0 | 41.1 | 5.9 | 78.0 | 47.0 |
| **Reporting from Given Information** | | | | | | | |
| Plants | 4.7 | 13.2 | 38.4 | 43.7 | [Category not applicable] | 82.1 | 43.7 |

Standard errors are presented in the Data Appendix.

Most fourth graders (81 percent) wrote at least minimally acceptable story summaries, and 20 percent generated adequate or better summaries. They tended to perform somewhat better on the tasks that asked them to report on an animal or to summarize the plant experiment. Eighty-two percent of the fourth graders wrote descriptions of the plant experiment that were judged minimal or better, and 44 percent wrote responses judged adequate. Whether they were given 10 or 20 minutes to respond to the animal reporting task, approximately three-quarters (78 percent) of the students wrote minimal or better responses. However, those who were given the longer response time were more likely to generate at least adequate responses to the task (47 percent, compared to 41 percent for the shorter version).

Almost none of the fourth graders wrote elaborated responses to the story summary task or to the 10-minute version of the animal reporting task, while 6 percent of those who had 20 minutes to respond wrote elaborated responses to the latter task.

Some of the animal reports that were rated as unsatisfactory expressed the writer's opinions about an animal but did not refer to its unique characteristics. Others described the general characteristics of several different animals. In general, the content and form of these reports suggested that the writer did not know how to report information. The following are examples of unsatisfactory responses to this task.[6]

*My favorite animal is a bird. I like to feed a bird and I feed the birds around my way all the time. My favorite is a bird.*

*We went to the zoo and seen a tiger. It was orange with black dots. It was fun. We also seen a loine. It was ugly. We seen a ap. We also seen a zebra. It was brack wite. It weat 2,0000 ponds.*

In minimal responses to the animal reporting task, students included at least one important fact about a particular animal, but they tended to repeat or contradict this information rather than elaborate on it. Some of these papers described a single animal but did not give information to show how that animal is typical of its kind. The following are examples of minimal responses to the task.

*Bear's can Be mein But They won't Bother you if you Don't Bother Them. Bear's are Derent in many ways for instens Bear's sleep ontill spring and many other ways.*

*Rabbits. Rabbits are very fuzzy soft animals (I love them). They eat carrots. Do make a mess. Some people do not not like rabbits. Some people don't like animals but I don't know why! If I had a ribbit I wound name it fuzzy. thats a nice name, I think. Rabbits and different because they have a tiny little nose and because their animals. They are speashal. Rabbits and very unuseual animals. if funny but I hve a hard time eating a carrot. rabbits are so small and they can a carrots, they must have very strong teeth because carrots are hard for some people to bite. I'ts funny to think but how rabbits get all that fur and what do they do all day??? If you have a ribbit your lucky.*

[6]The sample responses in this report were transcribed directly from students' papers. Errors have not been corrected.

Adequate responses to the task used a report format to describe the qualities or characteristics of a specific animal, either in a list or embedded in continuous text. Although parts of these reports were often quite cohesive, they typically lacked a structure to integrate the details presented. As a result, the responses often digressed. The following is an example of an adequate response.

*The Beta is a fish. The Beta comes in different colors. The Beta gets jelouse whenever he sees another fish like it. The Beta fans out and starts to fight. When the Beta lays its eggs its nest is br bbles. When the eggs hatch you can save all of them so the mother won't eat them but you can only save a few. But keep them in separate jars.*

Elaborated responses were cohesive presentations of information about the characteristics or qualities of the animal. The information contained in these responses is specific and concrete and includes facts, details, and examples. The response below is an example of an elaborated report written by a fourth-grade student.

*The Arctic Fox is a very tough animal. It thrives through long and cold winters. It reproduces more when there is more food. For instance, the average number of kits in one family is 10. Last year scientists studies came out 14 kits a family! The arctic Fox ranges from Northern America Eurasia and the northern islands. Sometimes the Arctic fox is white sometimes is a brown color. It really depends on the breed. Usually the Fox only has one breed but when one breed mates with another breed they sometimes have mixed breeds. The fox usually hunts small rodents like mice or sometimes whatever it can find. Arctic fox's take care of there young and the fother leaves the mother soon after mating, but the arctic fox mother teaches her kits to hunt.*

To summarize performance across the reporting tasks, a majority of the fourth graders (78 to 82 percent) produced responses that were considered minimal or better. However, the percentage who wrote adequate or better responses varied considerably, ranging from 20 to 47 percent across the tasks.

## Analysis Based on Personal Experience and on Given Information

Like the informative reporting tasks given at grade 4, the analytic tasks given to students in the upper grades were of two types: tasks that asked students to draw from personal experience, and tasks that asked them to use information provided. These analytic tasks are described below.

### Analysis Based on Personal Experience

***Favorite Story:*** Identify a favorite story and explain the reasons or criteria for liking that story. (Grades 8 and 12)

***Television Viewing Habits:*** Describe television viewing habits by explaining the kinds of programs watched, the reasons for watching them, and the amount of time spent viewing television. (Grades 8 and 12)

### Analysis Based on Given Information

***Food on the Frontier:*** Based on a paragraph about how the kinds of food eaten by pioneers are different from what people eat today, write an essay discussing the reasons for these differences. (Grades 8 and 12)

TABLE 4.2 summarizes students' performance on the analytic tasks included in the 1988 NAEP assessment.

TABLE
# 4.2

## Informative Writing: Analysis, Grades 8 and 12

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| **Analysis from Personal Experience** | | | | | | | |
| Favorite Story | | | | | | | |
| Grade 8 | 6.3 | 9.5 | 59.2 | 23.5 | 1.5 | 84.1 | 25.0 |
| Grade 12 | 8.5 | 11.5 | 44.9 | 29.4 | 5.8 | 80.0 | 35.1 |
| TV Viewing Habits | | | | | | | |
| 15-minute Version | | | | | | | |
| Grade 8 | 4.2 | 22.1 | 42.2 | 30.8 | 0.6 | 73.6 | 31.5 |
| Grade 12 | 5.2 | 15.9 | 43.1 | 32.8 | 3.0 | 78.9 | 35.8 |
| 30-minute Version | | | | | | | |
| Grade 8 | 2.2 | 18.6 | 38.9 | 35.4 | 4.9 | 79.2 | 40.3 |
| Grade 12 | 2.7 | 13.9 | 38.8 | 33.4 | 11.2 | 83.4 | 44.6 |
| **Analysis from Given information** | | | | | | | |
| Food on the Frontier | | | | | | | |
| Grade 8 | 3.3 | 20.7 | 60.3 | 14.7 | 0.9 | 75.9 | 15.7 |
| Grade 12 | 3.6 | 13.9 | 55.3 | 23.0 | 4.2 | 82.5 | 27.2 |

Standard errors are presented in the Data Appendix.

Seventy-four to 84 percent of the eighth graders and 79 to 83 percent of the twelfth graders wrote minimal or better responses to the two tasks that asked them to analyze information from their personal experience. From 25 to 40 percent of the eighth graders and from 35 to 45 percent of the twelfth graders wrote adequate or better responses to these tasks. Students in each grade who had 30 minutes to respond to the analytic task on television viewing habits were more likely to generate adequate or better responses than were students who were given the usual 15-minute response time.

When asked to write analyses based on given information rather than personal experience, eighth and twelfth graders were as likely to generate minimal or better responses as they were on the other analytic tasks. However, they were less likely to produce responses evaluated as adequate or better. Just 16 percent of the eighth graders wrote adequate or better responses to the Food on the Frontier task, while 27 percent of the twelfth graders did so.

Regardless of the analysis task at hand, very few students produced elaborated responses. On the tasks given with 15-minute response time, less than 6 percent of the eighth- or twelfth-grade students wrote papers rated as elaborated. Even on the task given with twice as much response time, only 5 to 11 percent of the students wrote responses that were rated at the highest level of task accomplishment.

Sample responses to the Favorite Story task provide a glimpse of the range of performance on an informative task requiring analysis. In unsatisfactory responses to this task, students sometimes identified a story they liked, but they failed to describe it or give reasons for their choice. The following is an example of an eighth-grade student's unsatisfactory response to this task.

> *Tock to the rescue is a good story. It has nine solutions in the book one of my best chapter was called "Tock Tocktics". The reason I liked was because it was hard. I got the book from a library. The seconed one I liked best was "The Telltale Tattletale". And the reason I liked it was because a girl or boy has been writing notes to Abby's teacher, Mrs - Widdlesworth. And the tack solves it. I was Allergia.*

Students who wrote minimal responses to the Favorite Story task identified a story they liked and gave one or more reasons as to why they chose this particular work. However, these reasons tended to be vague or weak in other respects. The following is an example of a minimal paper generated by an eighth grader in response to this task.

> *I really liked a story I read in English. It was called animal farm. I really liked this book because you knew it wasn't true. In this book they put animals in for people and it was really interesting. The book really didn't mean anything to me I really just enjoyed it.*

Students who wrote adequate responses identified a favorite story and gave reasons for their choice. For example, they supplied details about the story that would allow a reader to understand why it was chosen as a favorite. The following is an example of an adequate response written by an eighth-grade student.

*My favorite story I heard was about Anne Bradstreet. In this story Anne Bradstreets' house burns to the bottom. She has a positive perspective about what had just happened to her. She has this outlook, since she feels that she will always have a place to go to even though her house burned. what Anne Bradstreet meant was that she will always have a home, in heaven with God. What this means to me is that no matter what happens you will always have a home to go to created by God. I liked this story, because it gave you one perspective.*

Elaborated responses to the task were quite rare. In these responses, students identified a favorite story and provided a cohesive explanation as to why it was chosen. The following is an example of a paper rated as elaborated.

*One of my favorite stories is My Oedipus Complex. I think it is very realistic in a sense that it tells about children's feelings. It tells of how left out they feel when there is a new member in the household. The child seems to feel left out and neglected. They feel that because there is someone new, they have been forgotten. I think that because this is a common occurence among children, it makes for a good story. It explains the the feelings of a young boy when after several years, his father comes home after he has fought in a war. He seems to feel that because his father has come home, he has been neglected by his mother. The young boy seems to develop a sort of resentment for his father because he feels that his father is the cause for all of the grief that he is experiencing. It is not until a new baby is added to the household that he realizes that he is not the only one that this can happen to. This comes about through the father's sense of being neglected himself by his wife. She now seems to be paying more attention to the baby than to him.*

To review performance across the analysis tasks, a majority of the eighth-grade students (74 to 84 percent) and the twelfth-grade students (79 to 83 percent) wrote minimal or better responses. Far smaller percentages — 16 to 40 percent of the eighth graders and 27 to 45 percent of the twelfth graders — wrote responses that were rated as either adequate or elaborated. Students were somewhat more likely to write adequate or better responses to the tasks that asked them to draw from their personal experience than on the task that asked them to use information provided.

## Summary

Some of the informative tasks in the 1988 writing assessment involved reporting either from personal experience or given information, while others involved analysis from personal experience or given information. The reporting tasks, administered only at grade 4, asked students to report from given information or from their own experience. More than three-quarters of these young students gave minimal or better responses to the reporting tasks, and 20 to 47 percent produced adequate or better responses. Elaborated papers were very rare: across the set of reporting tasks, only 2 to 6 percent of the fourth-grade students wrote responses that were rated at this level of task accomplishment.

Three analysis tasks were given to students in grades 8 and 12, and 74 to 84 percent produced minimal or better responses to these tasks. Less than 45 percent of the students wrote papers considered adequate or better. Across the analysis tasks, only small percentages of the students wrote elaborated responses. When given 15 minutes to respond to the analytic tasks, from 1 to 6 percent of the eighth- and twelfth-grade students wrote papers rated at the highest level of task accomplishment. Even when they were given twice as much time to respond to the task that asked them to analyze their television viewing habits, just 5 to 11 percent of the students produced elaborated responses.

# 5 Persuasive Writing

People use persuasive writing when they wish to express their views in a way that will influence others. For example, they may use it to respond to an editorial on a debated community issue or to write an informal letter convincing a friend to visit. In all types of persuasive writing, the writer must take a point of view and either support or defend it. Sometimes opposing points of view are known and need to be refuted, while at other times, personal views are being expressed. In each case, writers need to draw together knowledge of the topic with their knowledge of the intended audience and the ways it may be influenced.

The 1988 assessment included a variety of persuasive writing tasks that fit into two broad categories: those that asked students to refute an opposing point of view, and those that asked them to convince others to adopt a particular point of view. Students' ability to perform these types of persuasive writing is discussed in the following sections.

## Writing to Convince Others to Adopt Your Point of View

Some of the persuasive writing tasks presented students with a problematic situation and asked them to state their opinion and explain or support it with reasons or an argument. While some of these tasks offered possible courses of action, others required students to use personal experience and knowledge in constructing a response. In each case, writers needed to be sensitive to the implicit concerns of the audience they were addressing.

The "convincing" tasks included the following:

> ***Spaceship:*** Decide whether creatures from another planet should be allowed to return home or be detained for scientific study, and convince others of this point of view. (Grade 4)
>
> ***Dissecting Frogs:*** Write a letter to a science teacher discussing and supporting views on dissecting frogs in science class. (Grade 8)
>
> ***Space Program:*** Take a stand on whether or not funding for the space program should be cut and write a persuasive letter that would convince a legislator of this stand. (Grade 12)

TABLE 5.1 presents the percentages of students at each score point for these persuasive writing tasks. At all three grades, most students (65 to 88 percent) provided at least minimal responses. However, only between 27 and 36 percent of the students at any grade produced adequate responses. When given extra time, slightly more than one-third of the fourth-grade students wrote adequate or better responses to the Spaceship task; in comparison, only 27 percent of the students who were given 10 minutes to respond did so. Similar to the informative writing results discussed in the previous chapter, elaborated responses to the persuasive tasks were rare.

TABLE

# 5.1 Persuasive Writing: Convincing Others, Grades 4, 8, and 12

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| Spaceship 10-minute Version Grade 4 | 8.3 | 24.1 | 40.3 | 26.3 | 1.0 | 67.6 | 27.3 |
| 20-minute Version Grade 4 | 7.4 | 18.7 | 37.5 | 33.7 | 2.7 | 74.0 | 36.4 |
| Dissecting Frogs Grade 8 | 2.0 | 10.2 | 56.5 | 29.4 | 1.9 | 87.8 | 31.3 |
| Space Program Grade 12 | 18.4 | 16.7 | 37.6 | 24.6 | 2.7 | 64.9 | 27.3 |

Standard errors are presented in the Data Appendix. **Note:** The percentage of "not rated" responses to the Space Program task is higher than for the other tasks because this appeared as the second task in a block that contained two tasks.

The Space Program task asked twelfth graders to adopt a position on future funding for the space program and to convince a legislator of this position using compelling reasons. Approximately two-thirds of the students took a position on the funding issue and gave at least minimal support for it, but only 27 percent adequately supported their stance or elaborated on the support they provided. Approximately 17 percent of the seniors performed unsatisfactorily, failing to state a position on the issue. The following twelfth grader's response to the Space Program task was rated unsatisfactory because the writer's viewpoint was not supported.

> *Dear Senator:*
>
> *I don't think there should be cuts in the funding but I do think the problems that we have here should be taken care of first. Then you should work on the space program.*

The following letter, rated as minimal, is an example of the type of response written by 38 percent of the students. These responses took a stand and briefly supported it with one or two relevant reasons.

*Dear Senator:*

*I am part of the generation that will be mostly affected by what happens in the future. The idea of having colonies in space is an amazing idea. We cannot have our funding cut in our space program. It would be a tragedy to take the future of people in my generation and not do anything that would improve it or help us out on it. The progress that people make today, is what future generations will have to live with tomorrow. Please, consider the people who will benefit from this decision. Thank you.*

This writer took a stand, but supported it primarily with generalities rather than specific reasons.

Only 25 percent of the students who responded to the Space Program task wrote at the adequate level. The following letter is broadly representative of the adequate responses, which took a stand and supported it with a list of reasons or a brief argument.

*Dear Senator:*

*I strongly urge you to make the proposed cuts in spending for the space program. There are so many other problems wich desperately need to be solved before we start worrying about something as frivalous as colonies in space.*

*The drug problem in our country is overwhelming. Alot of progress has been made but its been just a drop in the ocean. So much more is needed in helping these people. Our children are being effected by this at younger ages than ever before. We must have funding to educate the children on the dangers of drugs before its too late.*

*There are thousands of Americans freezing on the streets this winter. The problem of the homeless in America is growing. Over-crowding at shelters is wide spread. Food for the homeless is sparce.*

In elaborated responses to the Space Program task, students supported their stand with a cohesive argument or a list of interrelated reasons that together suggested an argument. The following elaborated letter was written by a twelfth grader.

*Dear Senator:*

*I think that it should be cut a lot. We have many problems on this planet that are terribly out of hand. We need better ways to conserve our natural resources, and research needs to be done. We need a cancer cure and an AIDS vaccine. The money can go toward making the public aware of these naturally occurring problems. We also need public emphasis on child care and birth control. Most of the children, that are born, are born to teenage mothers. This needs to be controlled. The population is growing drastically. The space on the earth is declining terribly fast. We also need to put emphasis on things made in the U.S.A. Make people aware that if we buy these things from the U.S. that we will pay ourselves, not other countries. Another way the money can be spend is on the national debt. It is up in the billions, and that is outrageously stupid. The space program does need some money, but we don't need homesteads on the moon. This is my point of view on the issue, and I think it stands strong on its information.*

Just 3 percent of the twelfth-grade students wrote responses to this task that were rated as elaborated.

Across the "convincing" tasks, 68 to 74 percent of the fourth graders, 88 percent of the eighth graders, and 65 percent of the twelfth graders wrote papers that were considered at least minimally acceptable in terms of task accomplishment. However, the percentages of students who wrote adequate or elaborated papers were far smaller — ranging from 27 to 36 percent across the grades.

## Writing to Refute an Opposing Point of View

Like the "convincing" tasks, the refutation tasks required students to take a stand on an issue and argue their position; however, they also needed to address an opposing view. To complete the refutation tasks successfully, students had to be responsive to the concerns of the opposition. The tasks in this category were as follows:

> ***Radio Station:*** Give reasons why the class should be allowed to visit a local radio show despite the manager's concerns. (Grades 4 and 8)
>
> ***Recreation Opportunities:*** Take a stand on whether a railroad track or a warehouse should be purchased. Defend your choice and refute the alternative using arguments based on possible recreational opportunities. (Grades 8 and 12)
>
> ***Bike Lane:*** Take a stand on whether a bike lane should be installed and refute the opposing view. (Grade 12)

The percentages of students performing at each level of task accomplishment for the refutation tasks are displayed in TABLE 5.2.

TABLE 5.2

## Persuasive Writing: Refuting an Opposing View, Grades 4, 8, and 12

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| Radio Station | | | | | | | |
| Grade 4 | 10.9 | 41.7 | 30.4 | 16.9 | 0.1 | 47.5 | 17.0 |
| Grade 8 | 12.1 | 26.2 | 35.0 | 25.5 | 1.2 | 61.7 | 26.7 |
| Recreation Opportunities | | | | | | | |
| 15-minute Version | | | | | | | |
| Grade 8 | 5.1 | 49.3 | 31.6 | 13.6 | 0.5 | 45.6 | 14.0 |
| Grade 12 | 5.4 | 33.0 | 36.1 | 23.8 | 1.9 | 61.7 | 25.6 |
| 30-minute Version | | | | | | | |
| Grade 8 | 3.6 | 48.7 | 28.4 | 17.7 | 1.7 | 47.7 | 19.3 |
| Grade 12 | 4.7 | 28.7 | 30.6 | 30.8 | 5.2 | 66.6 | 36.0 |
| Bike Lane | | | | | | | |
| Grade 12 | 4.3 | 27.2 | 44.8 | 19.8 | 3.9 | 68.5 | 23.6 |

Standard errors are presented in the Data Appendix. **Note:** The percentage of "not rated" responses to the Radio Station task at grade 8 is higher than for the other tasks because this appeared as the second task in a block that contained two tasks.

Across the grades, from 46 to 69 percent of the students stated a point of view and provided at least a minimal refutation of opposing views. Far fewer — 14 to 36 percent — provided support that was considered adequate or better.

To interpret the meaning of these results, it is helpful to examine sample papers. Responses to the Recreation Opportunities task that were rated as unsatisfactory typically failed to address the stated concerns of the intended audience — the town recreation director. Some of these responses argued for purchasing both sites. Others advised the recreation director to purchase one recreational facility or the other, but they did not support the choice with appropriate reasons or refute the reasons for purchasing the alternate site. When given 15 minutes to respond, one-half of the eighth-grade students and one-third of the high-school seniors wrote inadequate responses to the task. Even when they were given twice as much time to respond, a similar percentage of the eighth graders and a slightly smaller percentage of the twelfth graders wrote inadequate papers. The following is an example of an unsatisfactory response to the Recreation Opportunities task.

*Dear Ms. Director:*

*Remember that recreation center I told you about. Well we have got enough money to buy rail road train or a warehouse which do you think we should bye. Were going to get the answer soon from the director. Well see you. Write back.*

*From*

About one-third of the students in grades 8 and 12 provided responses to the task that were rated as minimal; these took a stand on the issue and supported it with one or two reasons that considered recreational benefits to the community. The following paper addresses the issue of why the abandoned railroad track should be purchased, but does not provide reasons for the choice or refute the opposing view.

*Dear Ms. Director:*

*It has come to my attention that you have to make a decision on whether to purchase the station or the warehouse. I'm sure both could be very useful to the public, but in response I feel we should purchase the station. The station could not only be turned into a small playing park for kids, but a historical museum for educational purposes in which all ages will benefit from. In my opinion I feel that the station would benefit the public alot more. I hope you decide to purchase the station.*

*Yours Truly*

From 14 to 18 percent of the eighth graders and 24 to 31 percent of the twelfth graders produced adequate responses to the Recreation Opportunities task. These responses, such as the following, took a stand and supported it with a brief argument.

*I am writing about the situation of how to spend the recreational funds. A strong suggestion needs to be made for the good of the community as a whole. I believe that the idea I've come up with will prove to become an exceptional benefit to the community.*

*First I would like to state that the purchase of the old warehouse on the edge of town would be the smartest buy. This house can be made into a small, inside playground and club for young children, especially a group of kids called latch-key-kids.*

*At this club - the kids could learn all kinds of arts and crafts, how to do small things that will be useful in the future. The playground part would be wonderful for getting exercise during all seasons of the year.*

*This place would be the type of surroundings kids need to learn to get along with peers and also a place for mothers and fathers to leave their kids and not worry about them.*

*A clubhouse could also prevent some street gangs from arising and kids could learn to have good clean fun.*

*I would really appreciate it if you could consider my suggestion.*

*Sincerely yours*

Very few students (about 1 to 2 percent of the eighth graders and 2 to 5 percent of the twelfth graders) wrote responses to the Recreation Opportunities task that were rated as elaborated.

Across all the refutation tasks, many students in each grade (from 64 to 86 percent) failed to write adequate responses, even when given twice the usual amount of time to respond. Students seemed to have had greater difficulty with the refuting tasks than with the convincing tasks described earlier in this chapter.

## Summary

Across the grades, 65 to 88 percent of the students gave minimal or better responses to the persuasive tasks that required them to convince others of a particular point of view, while just 27 to 36 percent provided adequate or better responses. On the refutation tasks, 46 to 69 percent wrote minimal or better responses and only 14 to 36 percent wrote adequate or elaborated responses.

The high percentage of unsatisfactory responses and relatively low percentages of adequate and elaborated responses to the tasks described in this chapter suggest that many students do not possess well-developed persuasive writing abilities — skills that are likely to be important to students in their personal and work lives.

# 6 Narrative Writing

Narrative writing, in its many forms, provides students with an opportunity to shape literary works from their ideas, experiences, and perceptions. Accordingly, the 1988 NAEP writing assessment included tasks designed to evaluate students' ability to generate personal or fictional narrative. The following sections summarize students' performance on these tasks.

## Imaginative Narrative

Two imaginative narrative tasks were given to students participating in the 1988 NAEP writing assessment.

> ***Three Wishes:*** Write a story about a person who was given three wishes and got into trouble using those wishes. (Grade 4)
>
> ***Ghost Story:*** Write a good, scary ghost story. (Grades 4, 8, and 12)

TABLE 6.1 presents the percentages of responses to each task that were rated minimal or better and adequate or better, as well as the percentages of responses judged at each score point: not rated, unsatisfactory, minimal, adequate, and elaborated.

TABLE

# 6.1 Narrative Writing: Imaginative Narrative, Grades 4, 8, and 12

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| **Three Wishes** | | | | | | | |
| Grade 4 | 6.5 | 12.9 | 59.3 | 20.8 | 0.6 | 80.6 | 21.3 |
| **Ghost Story** | | | | | | | |
| 10 or 15-minute Version | | | | | | | |
| Grade 4 | 4.6 | 9.4 | 77.0 | 8.8 | 0.3 | 86.0 | 9.1 |
| Grade 8 | 3.8 | 5.2 | 58.5 | 30.9 | 1.6 | 91.0 | 32.5 |
| Grade 12 | 5.3 | 6.2 | 48.3 | 37.1 | 3.1 | 88.5 | 40.1 |
| 20- or 30-minute Version | | | | | | | |
| Grade 4 | 3.1 | 8.9 | 71.0 | 16.4 | 0.6 | 88.1 | 17.1 |
| Grade 8 | 2.1 | 3.2 | 44.1 | 43.7 | 6.9 | 94.7 | 50.6 |
| Grade 12 | 4.0 | 4.3 | 36.0 | 48.4 | 7.4 | 91.7 | 55.7 |

Standard errors are presented in the Data Appendix.

Students tended to perform better on the imaginative narrative tasks than on the persuasive writing tasks discussed in the previous chapter. Eighty-one percent of the fourth graders wrote minimal or better responses to the Three Wishes task, and approximately one-fifth (21 percent) wrote responses judged adequate or better.

Of the students who were given 10 or 15 minutes to write a scary ghost story, most were able to do so in at least a minimal fashion (86 to 91 percent across the grades). Nine percent of the fourth graders, one-third of the eighth graders, and 40 percent of the high-school seniors generated adequate or better responses to the short version of this task. Students who were given twice as much time to respond to the Ghost Story task were more likely to generate adequate or better responses, but still only half of the eighth graders and 56 percent of the high-school seniors did so.

Students who gave unsatisfactory responses to the Ghost Story task often described events, characters, settings, and tone, but did not manage to tell a story by anchoring these elements in a plot. The following is an example of a paper rated as unsatisfactory.

*Once a pon a time all of the ghosts in the world goned up on all of the mortils. As you can see us mortis are in troble but who is going to help them their was Blood guts everywhere. their has been a movie called ghost Busters But therir is none for real so the mortals hasent got a cance so the yalloied and the imortals roule the worald.*

Papers rated as minimal attempted the basic storytelling task, typically providing inventive details that were anchored in a plot. These stories were rudimentary in one or more respects, however. Some featured a well developed beginning to a story but went no further; some provided only a brief outline of a story but lacked a scary tone; and others gave a developed plot that subsequently digressed or became entangled in itself. The following is an example of a response rated as minimal.

*In the town of Mayham their was a very freeky house. This house was supposed to be haunted by fred the town ghost.*

*So the town cop came and search the dark, dirty old broken-down house and saw nothing no signs of no ghost not a trace.*

*The town still beliefed their was a ghost in that house and one person was supposed to got killed by it.*

*20 years later that town was deserted.*

*You figure it out.*

In contrast, papers rated as adequate clearly showed evidence of a plot and contained descriptions of events, characters, and settings, and created a scary tone. These responses were more coherent than the responses rated as minimal and demonstrated a greater sense of story, supporting a plot with inventive details. The following is an example of a ghost story rated as adequate.

*One dark, and silent night, some high school kids were walking along a long, narrow road that led to a graveyard. The kids were drunk from a party in which they were. One girl said "Let's check out that graveyard!" The group agreed and soon they were traveling down the narrow path. When they reached the gate, it was open. Usually, at night, someone locks it. Opening the gate made a loud screech. They entered through the gate. The kids walked a bit further to a newly laid grave. To their surprise there was no name or date of death. While they were studying the grave they heard a moaning like noise. Suddenly, a gray foglike smoke arose from the plot. It was a deformed creature. One girl fainted at the sight of it. Her boyfriend picked her up and carried her off. The ghost had opened the gate so that the kids could get in easier. The weird ghost started to chase them out of the yard. When the kids were gone the ghost made a laughing sound and slammed the gate shut. He then locked it. The creature slowly floated back to his resting place.*

Responses that were rated as elaborated told a complete story, detailed through descriptions of events, characters, setting, and tone. These descriptions tended to be quite entertaining, and the stories were consistently resolved. The following paper is illustrative of the responses rated as elaborated.

*Once upon a night in the small town of La Nunta, Colorado, not far from Rocky Bard. There lived a boy by the name of Albert Romero, now Albert's destiny was to come face to face with the llorona. All he did was talk about the llorona, dream about her, and search for her.*

*One night in returning to his home in La Nunta, his car broke down on a dark and dreary road. There was not a thing in sight, not even a star. And when he got out to see what had happened he noticed that his car had stalled right next to a ditch. He was suprised and at the same time a little bit frightened. He thought that now was not the time to meet the llorona considering he was alone. At that thought a deadly chill raced down his back as he dared to look across the ditch when out of nowhere a ghostly lady with a blue and white dress floated on the water toward him! She had long black hair and she combination of a scream and a cry together. Albert at that sight screamed and ran back to his car, luckily it started and 'til this day not a word of the llorona leaves his lips!*

Across the entire set of imaginative narrative tasks, a majority of the students at each grade (81 to 95 percent) wrote papers considered minimal or better, while 9 to 56 percent wrote papers rated as adequate or elaborated.

## Personal Narrative

One personal narrative task, described below, was included in the 1988 NAEP writing assessment.

> ***Memorable Incident:*** Describe an incident or event that you remember well, telling what happened and how you felt at the time. (Grades 8 and 12)

TABLE 6.2 provides information on the percentages of students at each level of task accomplishment for the Memorable Incident task.

TABLE 6.2

### Narrative Writing: Personal Narrative, Grades 8 and 12

| Task | Percentage of Students at Each Level of Task Accomplishment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better |
| **Memorable Incident** | | | | | | | |
| Grade 8 | 2.8 | 17.3 | 42.0 | 33.8 | 4.1 | 79.9 | 37.9 |
| Grade 12 | 4.0 | 9.1 | 32.4 | 42.9 | 11.6 | 86.9 | 54.5 |

Standard errors are presented in the Data Appendix

Most of the eighth- and twelfth-grade students (80 percent and 87 percent, respectively) generated minimal or better responses to the personal narrative task that asked them to describe a memorable incident. Thirty-eight percent of the eighth graders provided descriptions considered adequate or better, while 55 percent of the twelfth graders did so. Eighth and twelfth graders' performance on this task was comparable to their performance on the imaginative narrative task, Ghost Story, described earlier in this chapter. However, a lower percentage of the eighth-grade students generated minimal or better responses to the Memorable Incident task than to the short version of the Ghost Story task, and a higher percentage of the twelfth-grade students generated adequate or elaborated responses.

## Summary

The 1988 NAEP writing assessment contained two tasks that asked students to generate imaginative narratives and one task that asked them to write personal narratives. Across the grades, a majority of the students — between 80 and 95 percent — generated at least minimal responses to these tasks, while from 9 to 56 percent produced adequate or better responses. Overall, students performed better on the narrative tasks than on the persuasive tasks discussed in the previous chapter.

# 7 The Effects of Longer Response Time on Students' Writing Performance

As large-scale assessments have gradually moved from using multiple-choice and short-response questions to using longer-response tasks to evaluate students' writing abilities, there has been an accompanying interest in studying aspects of the assessment context that may influence student performance. Accordingly, NAEP conducted a special study as part of the 1988 writing assessment to explore the effects of increased response time on students' writing achievement.

As a result of both the findings from this study and the desire to be responsive to the latest developments in writing instruction and assessment, the response time will be increased for all writing tasks administered in the 1992 NAEP assessment. At grade 4, students will be given 25 minutes to perform each task, and at grades 8 and 12, students will be given either 25 or 50 minutes. These tasks will be designed to encourage students to allocate their time across various writing activities, from gathering, analyzing, and organizing their thoughts to communicating them in writing.

The 1988 special study expanded on a 1987 investigation conducted by NAEP in conjunction with the Southern Regional Education Board (SREB).[7] The earlier study was initiated after a 1986 NAEP assessment involving eleventh-grade students from eight SREB states, in which South Carolina students did not perform as well in writing as had been expected by leading educators in the state. Given their programmatic emphasis on writing process instruction, these educators expected that giving students more time to generate their responses to the assessment tasks would provide a better measure of their writing proficiency, since it would allow them a chance to use the writing strategies they had been taught. The results of the special study indicated that students who were given 50 minutes rather than 16 minutes to respond to a persuasive writing task were slightly — but not significantly — more likely to generate adequate or better responses.

For the expanded study conducted as part of the 1988 national writing assessment, special versions of one informative, one persuasive, and one imaginative task were administered at each grade level. These special versions were identical to the regular versions, except that students were given twice as much time to respond (20 minutes at

[7] Arthur N. Applebee, Judith A. Langer, and Ina V.S. Mullis, *Understanding Direct Writing Assessments: Reflections on a South Carolina Writing Study* (Princeton, NJ: Educational Testing Service, 1989).

grade 4, 30 minutes at grades 8 and 12). The longer tasks were given to independent samples of students so that their performance could be compared with that of students who were given half as much time to respond (10 minutes at grade 4, 15 minutes at grades 8 and 12). The same criteria were used to evaluate the short and long versions of the special study tasks.

Before comparing students' performance on the long and short versions of the special study tasks, it was necessary to compare the writing proficiency of the students in each group when they were given the same amount of response time. This allowed NAEP to examine the possibility that differences in performance on the long versions of the special study tasks might be explained by preexisting differences between the writing abilities of students receiving the short versions of the tasks and those receiving the long versions. An initial task of the same type (informative, persuasive, or narrative) was completed by students in both groups under the usual 10- or 15- minute time constraints. These analyses indicated that for each type of writing and at each grade level, the students had comparable levels of task accomplishment. The performance of the two groups was then compared on the tasks administered with varying response times.[8]

## National Results

TABLE 7.1 displays the differences between the performance of students who received the long and short versions of the special study tasks. These comparisons are based on the percentages of students who generated minimal or better and adequate or better responses.[9]

[8]There was only one significant difference in performance between the two groups: a higher percentage of fourth-grade students in the group that received the short version of the special study task produced minimal or better responses to the persuasive writing task, Radio Station, than students in the group that received the long version.

[9]The response percentages presented in Tables 7.1, 7.2, and 7.3 differ slightly from the percentages given in the tables in Chapters Four through Six and in the Data Appendix. As previously described, students who took the short and long versions of the special study tasks were first given the same amount of time (10 or 15 minutes) to respond to an initial common task. A small percentage of students did not respond to this first task, however, and they were withdrawn from the analyses that compared performance on the long and short versions of the special study tasks. Thus, the tables in this chapter present comparisons based only on the performance of students who also responded to the initial common task.

TABLE

# 7.1 Difference in the Percentage of Minimal or Better and Adequate or Better Responses to the Special Study Writing Tasks: National Results

| | Percentage of Minimal or Better Responses | | | Percentage of Adequate or Better Responses | | |
|---|---|---|---|---|---|---|
| | Short Version | Long Version | Difference | Short Version | Long Version | Difference |
| **INFORMATIVE** | | | | | | |
| Report on an Animal | | | | | | |
| Grade 4 | 80.0 (2.0) | 78.8 (1.8) | −1.3 (2.9) | 45.4 (2.4) | 47.8 (2.3) | 2.4 (3.2) |
| TV Viewing Habits | | | | | | |
| Grade 8 | 74.7 (2.1) | 79.6 (1.5) | 4.9 (2.2) | 30.9 (2.1) | [illegible]7 (2.3) | 9.8 (2.8)* |
| Grade 12 | 85.0 (1.5) | 84.1 (1.7) | −0.9 (2.3) | 39.9 (2.4) | 45.[illegible] (2.5) | 5.6 (3.0) |
| **PERSUASIVE** | | | | | | |
| Spaceship | | | | | | |
| Grade 4 | 67.0 (1.6) | 74.5 (1.8) | 7.5 (2.5)* | 30.5 (1.9) | 36.6 (2.5) | 6.1 (3.1) |
| Recreation Opportunities | | | | | | |
| Grade 8 | 44.1 (2.2) | 48.0 (2.2) | 3.9 (3.0) | 12.5 (1.3) | 19.4 (1.7) | 6.9 (2.4)* |
| Grade 12 | 59.7 (2.5) | 67.3 (2.3) | 7.6 (3.3)* | 27.8 (2.1) | 36.4 (2.3) | 8.6 (2.6)* |
| **NARRATIVE** | | | | | | |
| Ghost Story | | | | | | |
| Grade 4 | 83.0 (1.4) | 88.8 (1.3) | 5.8 (1.9)* | 8.7 (1.3) | 17.3 (1.5) | 8.[illegible] (1.9)* |
| Grade 8 | 87.8 (1.3) | 95.0 (0.8) | 7.2 (1.6)* | 29.5 (2.1) | 50.7 (1.7) | 21.[illegible] (2.4)* |
| Grade 12 | 85.3 (1.[illegible]) | 92.3 (1.1) | 6.9 (1.9)* | 38.8 (2.4) | 56.2 (2.6) | 17.4 (3.0)* |

*Statistically significant difference between groups at the .05 level. Standard errors are presented in parentheses. It can be said with 95 percent certainty that for each population of interest, the percentage of students is within ± 2 standard errors of the estimated value.

Lengthening the amount of response time made the most difference to students as they produced narrative writing in response to the Ghost Story prompt. At all three grades, students who had twice the usual amount of time to respond to this task were significantly more likely to write minimal or better papers and adequate or better papers than were their peers who had the usual amount of time to respond.

On the persuasive tasks, higher percentages of students in grades 4 and 12 produced minimal or better responses when given additional time. Further, eighth- and twelfth-grade students who were given 30 minutes to write were significantly more likely to produce adequate or better responses to the Recreation Opportunities task than those given only 15 minutes. However, the differences observed were not as great as for narrative writing performance.

Additional time seemed to be of least benefit to students when they were asked to do informative writing. The only notable improvement with increased response time was a significant rise in the percentage of eighth-grade students who provided adequate or better responses to the task that asked them to report on their television viewing habits.

In taking a broad view of students' performance across the tasks given in both short and long versions, it is evident that more time was beneficial for some writers. When students were given 10 or 15 minutes to respond, from 44 to 88 percent wrote papers considered minimal or better and from 9 to 45 percent wrote papers considered adequate or better. When students were given twice as much time to write, higher percentages were able to generate responses considered minimal or better (from 48 to 95 percent across the entire set of tasks) or adequate or better (17 to 56 percent).

Although these findings are noteworthy, it should be recognized that the differences in performance between students who were given the long and short versions of each task were quite a bit smaller than the variations in performance from task to task. The percentage of fourth graders who wrote minimal or better responses to the 10-minute tasks ranged from 48 to 86 percent, and the percentage who wrote adequate or better responses ranged from 9 to 44 percent. The range of eighth and twelfth graders' performance on the 15-minute tasks given at the upper grades was similarly large.

## Results for Subpopulations

In addition to permitting a comparison of the overall differences in performance according to the length of response time provided, the results of the special study also were used to identify particular groups of students who benefited most from having additional time to write. TABLE 7.2 displays the differences in the percentages of White, Black, and Hispanic students who generated minimal or better and adequate or better responses to the special writing tasks given at each grade level.

When given twice the usual amount of response time, White students improved on four of the five tasks, where improvement is defined as a statistically significant increase in either the percentage of minimal or better responses *or* the percentage of adequate or better responses. Black and Hispanic students appeared to benefit less consistently from receiving additional time, as they improved significantly on only one of the five tasks. Black eighth graders were more likely to write adequate ghost stories when given additional time, as were Hispanic fourth and eighth graders. These minority students did not appear to improve their performance when given additional time to respond to the informative and persuasive tasks, however.

TABLE

# 7.2 Difference in the Percentage of Minimal or Better and Adequate or Better Responses to the Special Study Writing Tasks: Results by Race/Ethnicity

| | Percentage of Minimal or Better Responses | | | Percentage of Adequate or Better Responses | | |
|---|---|---|---|---|---|---|
| | Short Version | Long Version | Difference | Short Version | Long Version | Difference |
| **INFORMATIVE** | | | | | | |
| **Report on Animal** | | | | | | |
| **Grade 4** | | | | | | |
| White | 84.1 (2.5) | 85.4 (2.1) | 1.2 (3.6) | 50.5 (3.1) | 55.6 (2.8) | 5.2 (4.0) |
| Black | 64.3 (4.6) | 58.8 (5.3) | -5.5 (7.1) | 24.1 (5.4) | 27.2 (4.3) | 3.1 (6.5) |
| Hispanic | 74.2 (4.6) | 62.1 (3.8) | -12.0 (5.9) | 42.7 (4.8) | 31.0 (4.3) | -11.8 (6.8) |
| **TV Viewing Habits** | | | | | | |
| **Grade 8** | | | | | | |
| White | 78.3 (2.5) | 84.7 (2.8) | 6.4 (2.9) | 33.1 (2.8) | 44.1 (3.0) | 11.0 (3.6)* |
| Black | 61.4 (5.2) | 53.2 (4.9) | -8.2 (7.7) | 24.7 (3.7) | 27.5 (4.5) | 2.8 (6.3) |
| Hispanic | 69.2 (4.6) | 80.4 (5.4) | 11.1 (5.1) | 25.9 (4.1) | 32.6 (4.8) | 6.6 (6.0) |
| **Grade 12** | | | | | | |
| White | 85.9 (1.8) | 84.5 (2.2) | -1.4 (2.9) | 41.0 (2.7) | 48.4 (3.1) | 7.4 (4.0) |
| Black | 78.7 (3.9) | 77.9 (4.7) | -0.9 (5.3) | 34.9 (4.5) | 26.0 (4.7) | -8.9 (6.5) |
| Hispanic | 86.0 (5.3) | 97.3 (2.2) | 11.3 (5.6) | 36.6 (6.8) | 56.0 (7.8) | 19.4 (10.0) |
| **PERSUASIVE** | | | | | | |
| **Spaceship** | | | | | | |
| **Grade 4** | | | | | | |
| White | 72.0 (2.1) | 81.5 (2.0) | 9.5 (3.0)* | 33.3 (2.6) | 41.3 (3.2) | 8.0 (3.9) |
| Black | 47.5 (4.6) | 51.5 (6.0) | 4.0 (8.0) | 20.6 (3.4) | 20.8 (4.8) | 0.2 (5.8) |
| Hispanic | 61.9 (4.3) | 56.9 (4.3) | -5.0 (5.8) | 26.6 (3.8) | 25.8 (4.2) | 0.8 (5.4) |
| **Recreation Opportunities** | | | | | | |
| **Grade 8** | | | | | | |
| White | 50.4 (2.8) | 54.7 (3.2) | 4.2 (4.2) | 15.8 (1.8) | 23.1 (2.3) | 7.4 (3.2)* |
| Black | 24.2 (3.5) | 22.7 (4.6) | -1.5 (4.7) | 2.9 (1.6) | 7.3 (2.3) | 4.3 (2.5) |
| Hispanic | 31.7 (5.9) | 36.7 (5.4) | 5.0 (7.0) | 5.4 (2.5) | 13.4 (4.1) | 8.0 (5.2) |
| **Grade 12** | | | | | | |
| White | 63.1 (2.9) | 71.2 (2.6) | 8.1 (3.7)* | 29.9 (2.5) | 40.3 (2.5) | 10.4 (3.1)* |
| Black | 46.6 (4.5) | 56.7 (4.3) | 10.1 (5.6) | 15.2 (4.0) | 26.0 (4.5) | 10.8 (6.0) |
| Hispanic | 41.6 (5.9) | 55.8 (6.6) | 14.2 (8.2) | 24.1 (5.9) | 22.7 (6.6) | -1.4 (8.8) |
| **NARRATIVE** | | | | | | |
| **Ghost Story** | | | | | | |
| **Grade 4** | | | | | | |
| White | 85.8 (1.6) | 92.3 (1.2) | 6.5 (2.2)* | 10.4 (1.8) | 20.5 (1.9) | 10.1 (2.6)* |
| Black | 73.2 (3.9) | 75.1 (4.3) | 1.9 (6.0) | 5.3 (2.4) | 5.4 (2.5) | 0.1 (3.8) |
| Hispanic | 80.6 (3.8) | 87.7 (3.1) | 7.1 (4.9) | 3.5 (1.9) | 12.3 (3.1) | 8.7 (3.6)* |
| **Grade 8** | | | | | | |
| White | 88.6 (1.7) | 96.1 (0.9) | 7.5 (2.0)* | 33.2 (2.4) | 54.4 (2.0) | 21.2 (3.2)* |
| Black | 88.2 (3.8) | 91.5 (2.7) | 3.3 (4.6) | 17.7 (3.9) | 35.4 (4.1) | 17.7 (3.7)* |
| Hispanic | 78.6 (5.1) | 89.4 (3.5) | 10.9 (7.0) | 14.7 (3.1) | 38.9 (6.3) | 24.2 (7.0)* |
| **Grade 12** | | | | | | |
| White | 89.0 (1.7) | 93.1 (1.2) | 4.1 (2.1) | 44.5 (3.0) | 61.3 (2.9) | 16.8 (3.1)* |
| Black | 76.9 (5.0) | 86.1 (3.4) | 9.2 (6.2) | 21.0 (5.3) | 31.8 (4.8) | 10.8 (8.3) |
| Hispanic | 76.4 (6.3) | 90.7 (3.7) | 14.3 (7.0) | 28.3 (7.9) | 49.9 (7.9) | 21.6 (11.0) |

*Statistically significant difference between groups at the .05 level. Standard errors are presented in parentheses. It can be said with 95 percent certainty that for each population of interest, the percentage of students is within ± 2 standard errors of the estimated value.

TABLE 7.3 compares the performance of males and females on the short and long versions of the writing tasks given at each grade. As seen in the national and racial/ethnic comparisons, the benefits of additional time were primarily evident on the narrative task and less apparent on the informative and persuasive tasks. Eighth-grade males were more likely to write adequate or better responses to the informative task when given a longer response time, while their female peers did not appear to benefit from additional time. On the persuasive task, Recreation Opportunities, eighth-grade females and eighth- and twelfth-grade males who were given 30 minutes to respond outperformed those who were given 15 minutes. Almost without exception, males and females alike tended to write better narrative text when they were given twice as much response time.

TABLE
# 7.3

## Difference in the Percentage of Minimal or Better and Adequate or Better Responses to the Special Study Writing Tasks: Results by Gender

| | Percentage of Minimal or Better Responses | | | Percentage of Adequate or Better Responses | | |
|---|---|---|---|---|---|---|
| | Short Version | Long Version | Difference | Short Version | Long Version | Difference |
| **INFORMATIVE** | | | | | | |
| **Report on an Animal** | | | | | | |
| **Grade 4** | | | | | | |
| Male | 78.6 (2.4) | 78.5 (2.4) | -0.2 (3.5) | 46.3 (3.2) | 51.1 (3.2) | 4.9 (3.8) |
| Female | 81.4 (3.1) | 79.0 (2.6) | -2.3 (3.9) | 44.5 (3.7) | 44.5 (3.4) | 0.0 (4.9) |
| **TV Viewing Habits** | | | | | | |
| **Grade 8** | | | | | | |
| Male | 69.9 (2.8) | 77.6 (2.5) | 7.7 (3.6) | 26.8 (2.8) | 37.2 (3.1) | 10.4 (4.4)* |
| Female | 80.1 (2.6) | 81.6 (1.9) | 1.5 (2.9) | 35.5 (3.2) | 44.1 (2.9) | 8.6 (3.4) |
| **Grade 12** | | | | | | |
| Male | 80.6 (2.6) | 79.7 (2.9) | -1.0 (4.0) | 37.2 (3.3) | 39.2 (3.3) | 2.0 (4.9) |
| Female | 89.4 (2.0) | 88.3 (2.2) | -1.1 (2.5) | 42.7 (3.3) | 51.4 (3.9) | 8.7 (4.8) |
| **PERSUASIVE** | | | | | | |
| **Spaceship** | | | | | | |
| **Grade 4** | | | | | | |
| Male | 70.1 (2.4) | 72.1 (3.0) | 2.1 (3.6) | 26.7 (2.7) | 33.6 (3.1) | 6.8 (3.5) |
| Female | 63.8 (2.8) | 77.1 (2.3) | 13.2 (3.8)* | 34.4 (2.8) | 39.8 (3.6) | 5.4 (4.8) |
| **Recreation Opportunities** | | | | | | |
| **Grade 8** | | | | | | |
| Male | 45.1 (3.1) | 51.1 (3.3) | 6.0 (4.5) | 13.8 (2.0) | 20.3 (2.5) | 6.5 (3.4)* |
| Female | 42.9 (3.1) | 44.8 (2.7) | 1.9 (4.3) | 11.2 (1.7) | 18.6 (2.4) | 7.4 (2.7)* |
| **Grade 12** | | | | | | |
| Male | 56.0 (3.7) | 65.4 (3.3) | 9.4 (4.9) | 24.5 (2.8) | 34.3 (3.6) | 9.8 (4.6)* |
| Female | 63.0 (3.1) | 68.8 (3.2) | 5.8 (4.4) | 30.5 (3.0) | 38.0 (3.0) | 7.5 (3.8) |
| **NARRATIVE** | | | | | | |
| **Ghost Story** | | | | | | |
| **Grade 4** | | | | | | |
| Male | 79.0 (2.6) | 86.1 (2.2) | 7.1 (3.5)* | 5.7 (1.4) | 11.2 (2.1) | 5.5 (2.1)* |
| Female | 86.9 (1.6) | 91.2 (1.4) | 4.3 (1.9)* | 11.5 (2.3) | 22.9 (2.1) | 11.4 (3.2)* |
| **Grade 8** | | | | | | |
| Male | 86.2 (2.3) | 93.7 (1.4) | 7.4 (2.4)* | 21.8 (2.4) | 41.2 (2.8) | 19.4 (3.6)* |
| Female | 89.3 (2.1) | 96.4 (0.9) | 7.1 (2.3)* | 36.6 (2.9) | 60.4 (3.0) | 23.8 (3.9)* |
| **Grade 12** | | | | | | |
| Male | 80.1 (2.5) | 89.1 (2.1) | 9.0 (3.3)* | 28.4 (2.6) | 46.6 (3.3) | 18.2 (4.0)* |
| Female | 90.3 (1.9) | 94.5 (1.4) | 4.3 (2.4) | 48.6 (2.9) | 63.2 (3.3) | 14.6 (3.4)* |

*Statistically significant difference between groups at the .05 level. Standard errors are presented in parentheses. It can be said with 95 percent certainty that for each population of interest, the percentage of students is within ± 2 standard errors of the estimated value.

## Summary

The results of the special NAEP study on writing response times suggest that additional writing time does yield some improvement in students' writing performance. These gains were most evident on the narrative tasks, and least evident on the informative ones. Males and females benefited relatively equally from having additional time to write. White students appeared likely to benefit from longer response time, but the benefits for Black and Hispanic students were less consistent.

Although the improvements resulting from doubling the writing time were noteworthy, they were somewhat smaller than the variation in performance from task to task.

# PROCEDURAL APPENDIX

## An Introduction to The Nation's Report Card

The National Assessment of Educational Progress (NAEP) is an ongoing, congressionally mandated project established in 1969 to document the status of and trends in the educational achievement of American students, based on comprehensive and dependable national data collected in a scientific manner. From its inception until 1980, NAEP conducted annual assessments of 9-, 13-, and 17-year-olds attending public and private schools, and it has carried out biennial assessments since then. In 1984, the project began sampling students by grade as well as by age to enhance the utility of the data to school administrators and teachers. NAEP remains the only regularly conducted educational survey at the elementary-, middle-, and high-school levels. To date, approximately 1.5 million American students have participated in the NAEP assessments.

Across the years, The Nation's Report Card has evaluated students' proficiencies in reading, writing, mathematics, science, and social studies, as well as literature, art, music, citizenship, computer competence, and career and occupational development. Several of these subjects have been assessed many times, permitting an analysis of trends in student achievement. In the 1987-88 school year, reading, U.S. history, civics, and geography were assessed, in addition to writing.

NAEP assessments are developed through a broad-based consensus process involving educators, scholars, and citizens representative of many diverse constituencies and points of view. The 1988 writing assessment involved a comprehensive development effort. A panel of experts developed the objectives for the assessment, proposing goals that they felt students should achieve in the course of their education.[10] After extensive reviews, the objectives were given to item developers who prepared writing tasks and background questions to fit the specifications set forth in the objectives. In addition to a set of writing tasks, each student participating in the assessment was given a set of general background questions and a set of subject-specific background questions asking

[10] Educational Testing Service. *Writing Objectives: 1988 Assessment* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1988).

students for information on their writing instruction and experiences. The English or language arts teachers of eighth graders participating in the assessment were given a questionnaire that asked them for detailed information on their teaching practices and their characteristics.

All items for the 1988 assessment — cognitive and background alike — underwent intensive reviews by subject-matter and measurement specialists and by sensitivity reviewers whose purpose was to eliminate any material potentially biased or insensitive toward particular groups. The items were then field tested, revised, and administered to a stratified, multi-stage probability sample selected so that the assessment results could be generalized to the national population.

Following each NAEP assessment, the results are published in reports that describe patterns and trends in achievement in a given subject area. The NAEP reports are widely disseminated to legislators, educators, and others concerned with improving education in this country.

The Nation's Report Card is supported by the U.S. Department of Education, Office of Educational Research and Improvement, and directed by the National Center for Education Statistics. Educational Testing Service has been the grantee for the project since 1983. Earlier assessments were conducted by the Education Commission of the States. NAEP is governed by the National Assessment Governing Board, an independent, legislatively defined board.

## Overview of the 1988 Writing Assessment

This report summarized performance results and background information from the 1988 writing assessment, conducted from January through May of the 1987-88 school year.[11] As previously described, the objectives for the writing assessment were developed using a broad-based consensus process involving university professors, classroom teachers, researchers, school administrators, and curriculum specialists. The primary objective of the assessment was to measure students' ability to write for various purposes. Related objectives were to evaluate the extent to which students managed the writing process, controlled the forms of written language, and valued writing. These objectives were defined as follows:

- ***Students Use Writing to Accomplish a Variety of Purposes:*** This objective deals with the types of writing students are likely to do for themselves and others and presents three primary purposes for writing: informative, persuasive, and personal/imaginative narrative. Each of these purposes may be realized in writing that is primarily exploratory — a tentative or initial working out of new ideas as the writer reexamines and reconsiders what has been written. They may also be expressed in more public forms, organized and presented so that the ideas can be shared with others.

- ***Students Manage the Writing Process:*** This objective focuses on the importance of the process that leads to a piece of writing. In order to discuss the writing process, it is necessary to present its components as if they were discrete operations, but in reality they are interwoven parts of the entire process and not readily separable in practice. The recursive nature of the writing process and the interdependency of the subskills it requires cannot be overemphasized.

- ***Students Value Writing and What Has Been Written:*** This objective underscores the importance of learning why writing is a valuable personal and social activity and what roles written works serve in our society.

[11] Results from NAEP's 1984 to 1988 writing trend assessment of students in grades 4, 8, and 11 are summarized in a separate report: Arthur N. Applebee, Judith A. Langer, Ina V.S. Mullis, and Lynn B. Jenkins, *The Writing Report Card, 1984 to 1988* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1990)

The purposes for writing can intersect in various ways, depending on the contexts for writing. For example, an autobiography might very well be considered narrative, informative, and persuasive; a job application and resume may persuade as well as inform. Although these three purposes may frequently coexist in a piece of writing, one or another type often predominates. Writers' purposes are shaped by their initial perceptions of their topic, by the ways they consider their audience, by the social or instructional contexts in which they are writing, and by changes in focus that occur as they develop their topics.

## Informative Writing

Informative writing is used to share knowledge and convey messages, instructions, and ideas. Like all writing, informative writing is filtered through the writer's impressions, understanding, and feelings. Used as a means of exploration, informative writing helps the writer assimilate new ideas and reexamine old conclusions. When addressed to more public audiences, informative writing involves reporting on events or experiences, or analyzing concepts and relationships, including developing new hypotheses and generalizations. Any of these types of informative writing can be based on the writer's personal knowledge and experience or on less familiar information that must be understood in order to complete the task. Usually, informative writing involves a mix of the familiar and the new, clarifying both in the process of writing about them. Depending on the nature of the task, however, writing based on both personal experience and secondary information can span the range of thinking skills from recall to analysis and evaluation.

## Persuasive Writing

The primary aim of persuasive writing is to influence others to bring about some action or change. It may contain great amounts of information — facts, details, examples, comparisons, statistics, or anecdotes — and, as the writer identifies the most persuasive reasons to support a point of view, it may involve significant discoveries about one's own feelings and ideas. Writing persuasively also requires the writer to employ such critical thinking skills as analysis, synthesis, and evaluation.

Persuasive writing may be called for in a variety of situations. It may involve responding to requests for advice by giving an opinion and supporting it with reasons. It may also involve arguing one's own point of view in such a way that a particular audience will find it convincing. When there is opposition to what the writer is advocating, persuasive writing may entail refuting arguments that are contrary to one's own point of view.

In all persuasive writing, authors must choose the stance they will take. They can, for instance, use emotional or logical appeals or an accommodating or demanding tone. Regardless of the situation or approach, writers must be concerned first with having a desired effect on readers, beyond merely adding to their knowledge of a particular topic.

## Personal/Imaginative Narrative Writing

Personal/imaginative narrative writing contributes to an awareness of our world as we create, manipulate, and interpret reality. Such writing, whether fact or fantasy, requires close observation of people, objects, and places, while it enables exploration of all the wide-ranging possibilities of human experience. Further, this type of writing fosters creativity and speculation by allowing us to express our thoughts and then stand back, as a more detached observer might, and grasp more fully what we feel and why. Thus, personal/imaginative narrative offers a special opportunity to analyze and understand emotions and actions.

Whether a means of discovery or just plain "fun," narrative writing can produce stories or personal essays and can lead to other forms, such as poems or plays. Practice with these forms helps writers to develop an ear for language and to improve literary abilities.

Informative and persuasive writing can benefit from the features used in narrative writing. Informative writing, for example, can narrate an incident as part of a report or clarify a point through the use of metaphor or simile. A persuasive statement can be convincing not only on the basis of its internal logic, but also on the strength of its illustrative material (its stories), its rhythm, and the voice of its persona.[12]

[12] Educational Testing Service, *Writing Objectives: 1988 Assessment* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1987).

The writing tasks included in the assessment were therefore designed to reflect a range of the informative, persuasive, and narrative purposes for writing.

The composition of the 1988 NAEP writing assessment was based on a focused-balanced-incomplete-block (or focused-BIB) spiral matrix design whereby not all students respond to all items in the assessment. This enabled broad coverage of the subject areas being assessed while minimizing the burden for any one student. Each writing assessment booklet required an hour or less of students' time, depending on their grade level. In seven of the booklets administered at grade 4, students were read two background questionnaires — a general background questionnaire and a writing background questionnaire — which required about 15 minutes, and then given 30 minutes to complete three 10-minute blocks of writing tasks.

In seven of the booklets administered at grade 8 and at grade 12, students were given five minutes to complete each of the background questionnaires and 45 minutes to complete three 15-minute blocks of writing tasks. In addition to the focused-BIB booklets, three special study booklets were prepared at each grade level. Each contained the general and subject area background questionnaires, and two (rather than three) blocks of writing tasks. This design allowed NAEP to examine the effects of increased response time on students' writing performance.

Specifically, one task of each type (informative, persuasive, and narrative) was selected at each grade level, and a special version of the task was prepared that gave students twice the usual amount of time to write their responses. Thus, fourth-grade students were given 20 minutes instead of the usual 10 minutes to respond to each task, and eighth- and twelfth-grade students were given 30 minutes instead of the usual 15 minutes to respond. The special study booklets were organized so that one task of the usual length was paired with one task of the same type (informative, persuasive, or narrative) in the longer format. As described in Chapter Seven of this report, NAEP was able to compare students' performance on the long and short versions of the special study tasks. As stated in that chapter, the 1988 study expanded on an earlier investigation of the relationship between response time and writing performance, conducted in South Carolina by NAEP in 1987.[13]

Ten blocks of cognitive items were developed for each grade level. At grades 8 and 12, nine of the blocks contained one task, and one block included two tasks. Using the balanced incomplete block design, the blocks were assigned to booklets in such a way that each block appeared with every other block in one of seven booklets. In the "spiralling" part of the BIB-spiralling method, the booklets were distributed to the assessment sessions in such a way that typically only a few students in any one session received the same booklet.

## Sampling, Data Collection, and Scoring

Sampling and data collection activities for the 1988 assessment were conducted by Westat, Inc. As with all NAEP assessments, the 1988 assessment was based on a deeply stratified, three-stage sampling design. The first stage involved stratifying primary sampling units (counties or aggregates of small counties) by region and community type and making a random selection. Second, within each selected unit, public and private schools were enumerated, stratified, and randomly selected. Finally, students were randomly selected from each school for participation in the assessment.

[13]Arthur N. Applebee, Judith A. Langer, and Ina V.S. Mullis, *Understanding Direct Writing Assessments: Reflections on a South Carolina Writing Study* (Princeton, NJ: Educational Testing Service, 1989).

## Sampling

TABLE A.1 presents the student and school sample sizes for the 1988 grade-level writing assessment, as well as the school cooperation and student response rates.

TABLE A.1

### Student and School Sample Sizes, School Cooperation and Student Completion Rates, 1988 Assessment

| Grades | Student Sample Size | School Sample Size | Percent of Schools Participating | Percent of Student Completion |
|---|---|---|---|---|
| 4 | 6,679 | 327 | 88.7 | 92.4 |
| 8 | 6,525 | 399 | 86.6 | 87.8 |
| 12 | 6,069 | 304 | 82.8 | 78.7 |
| Total | 19,273 | 1,030 | | |

Note: These figures were obtained from the **Reports on NAEP Field Operation and Data Collection Activities**, prepared by Westat, Inc. Sampled schools that refused to participate were replaced, but the school cooperation rates were computed based on the schools originally selected for participation in the assessments. The student completion rates represent the percentage of students assessed of those invited to be assessed, including in follow-up sessions (when necessary).



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## Data Collection and Scoring

All data were collected by a trained field staff. Some students sampled (less than 5 percent overall) were excluded from the assessment because of limited English proficiency or severe handicap. NAEP began collecting descriptive information on these excluded students in 1984.

Following each session, the assessment administrators sent completed materials back to ETS for processing. Students' responses to each writing task were professionally evaluated by trained readers using primary trait scoring guidelines that focused on levels of task accomplishment. On average, the readers scored 2,300 responses to the short writing tasks and 660 responses to the long tasks at grade 4; 2,300 responses to the short tasks and 650 responses to the long tasks at grade 8; and 2,100 responses to the short tasks and 620 responses to the long tasks at grade 12.

## Primary Trait Scoring: Evaluating Task Accomplishment

A primary trait scoring guide was developed for each writing task to focus readers' attention on how successfully students' responses accomplished the task set forth in the prompt. As illustrated in FIGURE A.1, the guides typically defined five levels of task accomplishment — not rated, unsatisfactory, minimal, adequate, and elaborated — based on the rhetorical demands of the task. (A few of the scoring guides did not define an "elaborated" category as it was not appropriate to do so given the nature of the task.)

FIGURE
A.1

## Levels of Task Accomplishment

| Score | |
|---|---|
| 4 | **Elaborated.** Students providing elaborated responses went beyond the essential, reflecting a higher level of coherence and providing more detail to support the points made. |
| 3 | **Adequate.** Students providing adequate responses included the information and ideas necessary to accomplish the underlying task and were considered likely to be effective in achieving the desired purpose. |
| 2 | **Minimal.** Students writing at the minimal level recognized some or all of the elements needed to complete the task but did not manage these elements well enough to assure that the purpose of the task would be achieved. |
| 1 | **Unsatisfactory.** Students who wrote papers judged as unsatisfactory provided very abbreviated, circular, or disjointed responses that did not even begin to address the writing task. |
| 0 | **Not rated.** A small percentage of the responses were blank, indecipherable, or completely off task, or contained a statement to the effect that the student did not know how to do the task; these responses were not rated. |

A group of trained readers carried out the primary trait scoring over a period of several months. Prior to scoring the responses to each task, an intensive training session was conducted by NAEP staff in the use of the scoring guide for that task. Twenty percent of the responses were rescored by a second reader to give an estimate of interreader reliabilities. As shown in TABLE A.2, which provides correlations and percentages of exact agreement between the first and second readers, the interreader reliabilities were generally quite high.

TABLE A.2

# Percentages of Exact Score Point Agreement and Reliability Coefficients for Primary Trait Scoring

| Task | Percent Exact Agreement | Reliability Coefficient |
|---|---|---|
| **Grade 4** | | |
| **Plants** | 93.1 | .95 |
| **Ghost Story** | | |
| Short Version | 90.0 | .81 |
| Long Version | 89.0 | .84 |
| **Spaceship** | | |
| Short Version | 92.2 | .95 |
| Long Version | 91.6 | .95 |
| **Radio Station** | 94.9 | .96 |
| **Summary of Story** | 88.9 | .87 |
| **Report on an Animal** | | |
| Short Version | 89.8 | .91 |
| Long Version | 91.5 | .95 |
| **Three Wishes** | 92.4 | .92 |
| **Grade 8** | | |
| **Food on the Frontier** | 87.6 | .86 |
| **Ghost Story** | | |
| Short Version | 92.2 | .91 |
| Long Version | 95.4 | .95 |
| **Dissecting Frogs** | 91.8 | .91 |
| **Radio Station** | 93.3 | .94 |
| **Favorite Story** | 93.0 | .89 |
| **TV Viewing Habits** | | |
| Short Version | 93.3 | .94 |
| Long Version | 90.7 | .93 |
| **Memorable Incident** | 87.4 | .89 |
| **Recreation Opportunities** | | |
| Short Version | 92.8 | .93 |
| Long Version | 96.8 | .98 |
| **Grade 12** | | |
| **Food on the Frontier** | 88.0 | .88 |
| **Ghost Story** | | |
| Short Version | 92.2 | .90 |
| Long Version | 90.9 | .93 |
| **Bike Lane** | 86.0 | .89 |
| **Space Program** | 91.5 | .94 |
| **Favorite Story** | 90.1 | .91 |
| **TV Viewing Habits** | | |
| Short Version | 90.3 | .92 |
| Long Version | 95.1 | .97 |
| **Memorable Incident** | 88.2 | .91 |
| **Recreation Opportunities** | | |
| Short Version | 89.2 | .92 |
| Long Version | 92.2 | .95 |

**Note:** The primary trait scoring conducted in 1988 was based on five scoring categories, as described in Figure A.1

Following the scoring of students' written responses, the information from the booklets was transcribed to the NAEP data base. All data collection and processing activities were conducted with attention to rigorous quality control procedures.

## Data Analysis

Once the processing of the writing data had been completed, the data were weighted in accordance with the population structure. The weighting reflects the probability of selection of each student, adjusts for nonresponse, and, through poststratification, assures that the representation of certain subpopulations corresponds to figures from the Census and the Current Population Survey. (*The NAEP 1987-88 Technical Report* will provide further details on weighting and its effects on proficiency estimates.)

### The Writing Scale: Average Response Method (ARM) Scaling

Based on the primary trait (or task accomplishment) scores for responses to the writing tasks in the 1988 assessment, the writing data were scaled using the Average Response Method (ARM). The ARM provides an estimate of average writing achievement for each respondent as if he or she had taken all of the writing tasks given and as if NAEP had computed average achievement (the average primary trait score times 100) across that set of tasks.[14] The ARM technology, which is based on estimates of the interrelationships among tasks given to the same students, was first used to analyze and report results from the 1984 writing assessment.

The Average Response Method of scaling nonbinary data combines linear models technology with multiple imputation procedures to produce a set of plausible values for every student. Each set of plausible values predicts what that student's average score across the entire set of writing tasks might be, based on the student's responses to the particular tasks presented and on the student's status on a variety of demographic and background variables. Since it was first used in 1984, the Average Response Method has been generalized to provide for performance comparisons across grades, based on a linking subset of items, and to allow the inclusion of new writing tasks on the scale.[15]

[14] As previously noted, the numeric values of the primary trait scores are 0 = not rated, 1 = unsatisfactory, 2 = minimal, 3 = adequate and 4 = elaborated.

[15] A general description of the Average Response Method can be found in Albert E. Beaton and Eugene G. Johnson, "The Average Response Method of Scaling," *Journal of Educational Statistics* (1990). Further details on this procedure as it was applied to the scaling of the writing cross-sectional data can be found in *The NAEP 1987-88 Technical Report* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1990).

## Eighth-grade Teacher Questionnaire

To supplement the information on writing instruction reported by students, the English/language arts teachers of eighth-grade students sampled for participation in the 1988 writing assessment were asked to complete a questionnaire that asked about their instructional practices, teaching backgrounds, and characteristics. NAEP collected information from 756 teachers who were linked with 3,437 of the 6,525 eighth graders participating in the 1988 writing assessment. (Most of the teachers had more than one student participating in the assessment.) For the teacher questionnaire analyses reported herein (Chapter 3), these 3,437 students were treated as the total sample.

The design of the teacher questionnaire was rather complex, consisting of three parts. The first part contained questions on each *student* participating in the assessment, as some teachers had more than one of their students assessed. Teachers were asked to provide information on the types of written or oral feedback they typically provided on each student's writing, the number of papers completed during the previous month, grades on writing assignments, and other factors such as attendance and parental contact.

In the second part of the questionnaire, teachers were asked to provide information on each *class* they taught that included one or more students who participated in the writing assessment. Teachers were asked whether students were assigned to the class by ability level (and, if so, the writing ability level of the class), the amount of time spent on writing instruction, the extent to which textbooks or workbooks were used, emphases in grading students' papers, the frequency of various types of writing assignments, and the use of various instructional approaches.

The third part of the questionnaire requested information about the *teacher*, including questions on his or her characteristics -- such as race/ethnicity, gender, and age as well as on academic degrees held, teaching certification and experience, special training in writing instruction, amount of control over school decision-making, ability to get resources, and commitment to teaching.

On each teacher questionnaire, the students and classes for which teachers were to complete information were identified. This information was transcribed onto the cover of the questionnaire using the identification numbers assigned to each student participating in the assessment. Teachers were also given unique identification numbers. In accordance with NAEP's confidentiality policy, the names of the students assessed and the teachers who completed questionnaires never left the schools. Prior to data analysis, the student identification numbers and class period designations on the front of each teacher questionnaire were used to link the teacher questionnaire data to the records containing information on students' characteristics and their performance in the assessment.

In the 1988 assessment, NAEP was able for the first time to directly link information on students' writing performance with information provided by their teachers. Using the student as the unit of analysis, rather than the teacher, it is possible to describe instruction as received by nationally representative samples of eighth graders. This permits addressing questions such as, what do the teachers of students actually do in the classroom? And how do these practices relate to writing achievement?

The perspective provided by these analyses may differ from what would be obtained by simply collecting information from a national sample of eighth-grade writing teachers; however, the approach used is in keeping with NAEP's goal of providing information about the educational context and performance of *students*. Further, the results may reflect more accurately what is actually going on in classrooms, because they indicate what the language arts teachers of eighth graders are doing, rather than what all eighth-grade language teachers are doing regardless of how much contact they have with students.

In reality, the differences between the two sets of results — that is, results from surveying all teachers and results from surveying the teachers of students at a given grade — may be quite small. However, to be completely accurate with respect to the data collected and the analyses performed, care was taken throughout this report to describe the results of the teacher questionnaire analyses in terms of students rather than teachers. The information gleaned from these analyses helps to provide a more complete picture of the instructional experiences of NAEP's nationally representative sample of eighth-grade students.

## Estimating Variability in Proficiency Measures

Since the statistics presented in this report are estimates of population and subpopulation characteristics, rather than the actual (unknown) values of those characteristics, it is important to have measures of the degree of uncertainty of the estimates. Two components of uncertainty are accounted for in the standard errors based on the NAEP data: (1) uncertainty due to sampling variability and (2) uncertainty arising because scale scores for each respondent are based on a relatively small number of cognitive items.

The sampling variance provides a measure of the dependence of the results on the particular sample achieved. Because NAEP uses complex sampling procedures, conventional formula for estimating sampling variability that assume simple random sampling are inappropriate. To account for the characteristics of its complex sample design, NAEP uses a jackknife replication procedure to estimate the sampling variability. Briefly, the jackknife procedure estimates the sampling variance of a statistic by repeatedly altering the sample in a controlled manner and recomputing the statistic based on the altered sample.[16] The jackknife variance estimate is based on the variability of the statistics from the altered samples. The square root of the jackknife variance estimate of a statistic is the sampling standard error of that statistic. This standard error includes all possible nonsystematic error associated with administering specific items to designated students in controlled situations.

[16] Eugene G. Johnson, "Considerations and Techniques for the Analysis of NAEP Data," *Journal of Educational Statistics*, Vol. 14, No. 4 (December 1989).

The jackknifed standard error provides a reasonable measure of uncertainty for any statistic based on values observed without error. Population scores for cognitive items meet this requirement, but scale-score proficiency values do not. Because each student typically responds to relatively few items, there exists a nontrivial amount of imprecision in the measurement of the proficiency values for any given student. This imprecision adds an additional component of variability to statistics based on scale-score proficiency values. This component is estimated by assessing the dependence of the value of the statistic on the particular set of student level estimated proficiencies used in its computation. The measure of the overall variability of a statistic based on scale scores is the sum of the component due to imprecision of measurement and the jackknife sampling variance. The standard error of the statistic is the square root of this sum. The estimated population mean ± 2 standard errors represents an approximate 95 percent confidence interval -- which means it can be said with about 95 percent certainty that the average performance of the population of interest is within this interval.[17]

## NAEP Reporting Groups

NAEP reports performance for the nation and for groups of students defined by shared characteristics. In addition to national results, this report contains information about subgroups defined by region of the country, gender, race/ethnicity, and school characteristics. The following section defines these and other subpopulations referred to in this report.

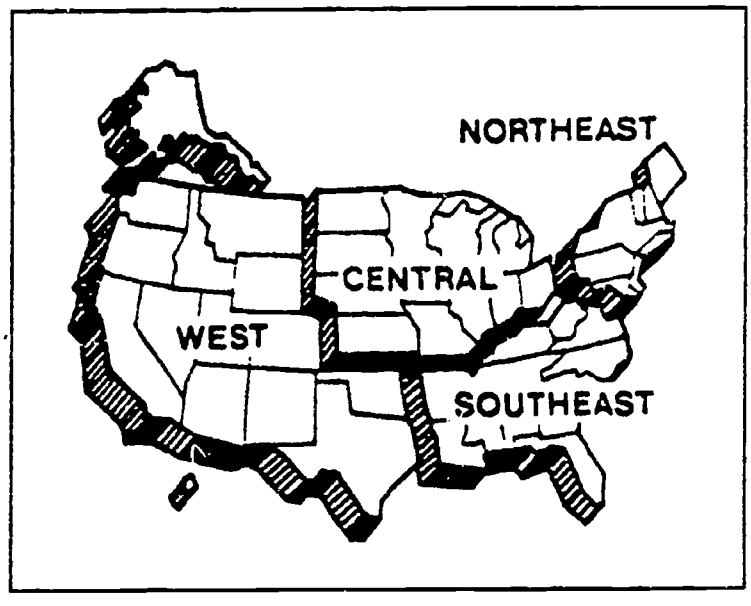
### Gender

Results are reported for males and females.

### Region

The country has been divided into four regions: Northeast, Southeast, Central and West. States included in each region are shown on the following map.

[17] For a complete description of NAEP variance estimation, see *The NAEP 1987-88 Technical Report* (Princeton, NJ: Educational Testing Service, National Assessment of Educational Progress, 1990).




**Race/Ethnicity**

Results are presented for Black, White, and Hispanic students, based on students' identification of their race/ethnicity according to the following categories: White, Black, Hispanic, Asian or Pacific Islander, American Indian or Alaskan Native, and Other. Although the sample sizes were insufficient to permit separate reliable estimates for all subgroups defined by race/ethnicity, all students were included in computing the national estimates of average writing performance.

**Size and Type of Community**

Three extreme community types of special interest are defined by an occupational profile of the area served by the school, as well as by the size of the community in which the school is located. This is the only reporting category that excludes a large number of respondents. About two-thirds do not fall into the classifications listed below. Results for the remaining two-thirds are not reported in this breakdown, since their performance was similar to that for the nation.

**Advantaged Urban Communities.** Students in this group attend schools in or around cities with a population greater than 200,000 where a high proportion of the residents are in professional or managerial positions.

**Disadvantaged Urban Communities.** Students in this group attend schools in or around cities with a population greater than 200,000 where a high proportion of the residents are on welfare or are not regularly employed.

**Rural Communities.** Students in this group attend schools in areas with a population below 10,000 where many of the residents are farmers or farm workers.

**Race/Ethnicity by Region and Advantaged/Disadvantaged Urban Communities**

TABLE A.3 provides information on the cross-section between students' racial/ethnic characteristics and the regions in which they live and the types of communities in which they attend school.

TABLE

# A.3

## Distribution of White, Black, and Hispanic Students by Region and by Size and Type of Community

| | Percentage of Students | | |
|---|---|---|---|
| | White | Black | Hispanic |
| **GRADE 4** | | | |
| Total | 69.4 (0.4) | 15.1 (0.3) | 11.4 (0.3) |
| **Region** | | | |
| Northeast | 75.5 (2.0) | 11.7 (1.6) | 8.8 (1.1) |
| Southeast | 58.8 (2.1) | 30.5 (1.8) | 7.7 (0.8) |
| Central | 81.7 (2.0) | 9.7 (1.9) | 5.9 (0.6) |
| West | 63.6 (1.4) | 8.5 (1.3) | 21.5 (1.1) |
| **Size and Type of Community** | | | |
| Advantaged urban | 75.7 (3.1)! | 6.8 (1.7)! | 12.0 (2.9)! |
| Disadvantaged urban | 25.5 (5.4) | 47.3 (6.4) | 21.8 (3.0) |
| **GRADE 8** | | | |
| Total | 72.2 (0.5) | 14.5 (0.4) | 9.4 (0.2) |
| **Region** | | | |
| Northeast | 74.3 (2.8) | 14.9 (2.4) | 7.7 (1.1) |
| Southeast | 70.7 (2.4) | 22.8 (2.1) | 4.9 (0.9) |
| Central | 78.5 (2.4) | 14.7 (2.2) | 4.3 (0.6) |
| West | 66.3 (1.6) | 6.9 (1.3) | 19.3 (1.4) |
| **Size and Type of Community** | | | |
| Advantaged urban | 76.9 (3.6) | 8.7 (2.7) | 10.4 (2.8) |
| Disadvantaged urban | 32.6 (5.6) | 42.3 (5.6) | 20.8 (4.4) |
| **GRADE 12** | | | |
| Total | 75.2 (0.7) | 14.2 (0.6) | 7.2 (0.3) |
| **Region** | | | |
| Northeast | 78.5 (2.2) | 12.4 (1.8) | 6.2 (1.0) |
| Southeast | 69.2 (2.9) | 25.6 (2.6) | 3.9 (1.2) |
| Central | 84.0 (2.1) | 9.9 (1.7) | 3.9 (0.8) |
| West | 68.0 (1.9) | 10.4 (1.4) | 14.6 (1.5) |
| **Size and Type of Community** | | | |
| Advantaged urban | 85.1 (2.8) | 6.1 (1.6) | 4.2 (1.0) |
| Disadvantaged urban | 22.2 (6.5) | 44.8 (6.7) | 30.2 (4.7) |

Standard errors are presented in parentheses. The "!" symbol indicates that the data should be interpreted with caution because the standard errors cannot be accurately estimated

## Additional Background Factors

In addition to gathering information on students' gender, race/ethnicity, the region in which they live, and the size and type of community in which they attend school, NAEP collects data from all students on a number of background questions, including the type of school program in which they are enrolled, the number and types of reading materials in the home, the highest level of parents' education, and the amount of time spent doing homework and viewing television. Students participating in the writing assessment were also asked a series of background questions specific to their English/language arts instruction.

# DATA APPENDIX

The following tables supplement the tables presented in the body of this report. The first two pages of the Data Appendix present information on average writing proficiency, standard deviations, and performance distributions for the nation and subpopulations of interest. The final pages present information on the percentages of students (with accompanying standard errors) at each level of task accomplishment for each of the tasks included in the 1988 NAEP writing assessment.

## Average Writing Proficiency for the Nation and Subpopulations, 1988

| | Grade 4 | Grade 8 | Grade 12 |
|---|---|---|---|
| **Nation** | 190.9 (1.0) | 209.5 (0.9) | 224.2 (1.3) |
| **Gender** | | | |
| Male | 184.4 (1.3) | 200.9 (1.4) | 212.5 (1.4) |
| Female | 197.5 (1.3) | 218.5 (1.2) | 234.8 (1.8) |
| **Race/Ethnicity** | | | |
| White | 197.6 (1.3) | 216.0 (1.0) | 230.5 (1.5) |
| Black | 168.8 (1.9) | 187.5 (2.2) | 200.7 (2.3) |
| Hispanic | 178.2 (2.0) | 192.4 (2.1) | 204.9 (3.5) |
| **Region** | | | |
| Northeast | 194.5 (2.6) | 213.2 (2.1) | 229.9 (3.6) |
| Southeast | 183.3 (2.0) | 203.1 (1.9) | 218.1 (2.6) |
| Central | 192.0 (2.2) | 210.6 (1.9) | 224.0 (1.7) |
| West | 193.8 (1.9) | 211.0 (1.7) | 224.1 (2.1) |
| **Type of School** | | | |
| Public | 189.4 (1.0) | 206.7 (0.8) | 222.1 (1.2) |
| Non-public | 203.4 (4.1) | 231.3 (2.8) | 236.7 (3.4) |
| **Size and Type of Community** | | | |
| Advantaged Urban | 206.8 (2.6) | 222.7 (3.7) | 237.2 (7.6) |
| Disadvantaged Urban | 172.1 (2.9) | 189.2 (2.9) | 206.5 (3.9) |
| Rural | 188.3 (3.2) | 210.6 (3.2) | 225.3 (3.0) |
| **Parents' Highest Level of Education** | | | |
| Not graduated high school | 177.7 (2.9) | 196.6 (2.1) | 208.9 (3.0) |
| Graduated high school | 186.3 (1.9) | 205.1 (1.8) | 218.9 (1.9) |
| Some college | 202.1 (2.5) | 216.1 (1.6) | 226.8 (1.7) |
| Graduated college | 200.7 (1.3) | 216.5 (1.5) | 231.0 (1.8) |
| **Reading Materials in the Home** | | | |
| 0 to 2 items | 177.9 (1.4) | 193.2 (1.7) | 201.1 (2.7) |
| 3 items | 192.1 (1.2) | 206.6 (1.5) | 222.7 (2.3) |
| 4 items | 200.1 (1.4) | 216.6 (1.2) | 229.8 (1.5) |
| **Hours of Television Watched Each Day** | | | |
| 0 to 2 hours | 196.0 (1.5) | 215.4 (1.7) | 228.1 (1.8) |
| 3 to 5 hours | 196.2 (1.3) | 211.9 (1.1) | 223.0 (1.4) |
| 6 hours or more | 177.5 (1.4) | 191.8 (1.6) | 203.1 (2.9) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that for each population of interest, the percentage of students at each score point is within ± 2 standard errors of the estimated value.

## Average Writing Proficiency, Standard Deviations, and Percentile Distributions with Standard Errors

| | | Grade 4 | Grade 8 | Grade 12 |
|---|---|---|---|---|
| **TOTAL** | | | | |
| Average Proficiency | | 190.9 (1.0) | 209.5 (0.9) | 224.2 (1.3) |
| Standard Deviation | | 42.3 (0.7) | 43.8 (0.6) | 49.2 (0.8) |
| Percentiles | 5 | 119.3 (1.2) | 137.1 (2.7) | 142.3 (2.0) |
| | 10 | 136.3 (1.3) | 153.7 (1.2) | 161.1 (2.0) |
| | 25 | 163.5 (1.0) | 180.3 (1.1) | 191.9 (1.5) |
| | 50 | 192.0 (1.3) | 209.9 (1.3) | 224.9 (1.3) |
| | 75 | 219.7 (1.2) | 238.9 (1.5) | 257.4 (1.9) |
| | 90 | 243.9 (1.4) | 264.9 (1.3) | 286.4 (2.6) |
| | 95 | 258.4 (1.5) | 280.4 (2.0) | 303.7 (2.7) |
| **MALE** | | | | |
| Average Proficiency | | 184.4 (1.3) | 200.9 (1.4) | 212.5 (1.4) |
| Standard Deviation | | 41.4 (0.9) | 43.4 (0.9) | 48.6 (1.1) |
| Percentiles | 5 | 113.5 (2.7) | 129.3 (4.2) | 131.7 (2.3) |
| | 10 | 130.2 (2.0) | 145.6 (2.6) | 151.0 (1.6) |
| | 25 | 157.5 (1.6) | 172.1 (1.5) | 180.6 (1.9) |
| | 50 | 186.1 (1.1) | 201.5 (1.3) | 213.7 (1.5) |
| | 75 | 212.9 (1.7) | 230.4 (1.4) | 245.5 (1.7) |
| | 90 | 236.5 (1.8) | 255.8 (2.3) | 273.2 (2.3) |
| | 95 | 249.8 (1.8) | 271.1 (2.5) | 290.4 (3.7) |
| **FEMALE** | | | | |
| Average Proficiency | | 197.5 (1.3) | 218.5 (1.2) | 234.8 (1.8) |
| Standard Deviation | | 42.2 (0.7) | 42.4 (0.8) | 47.3 (1.1) |
| Percentiles | 5 | 127.2 (2.6) | 148.8 (2.2) | 156.0 (3.3) |
| | 10 | 143.0 (1.6) | 164.5 (1.5) | 174.7 (2.5) |
| | 25 | 169.9 (1.5) | 190.2 (1.3) | 203.4 (1.1) |
| | 50 | 198.1 (1.5) | 219.0 (1.8) | 235.6 (2.8) |
| | 75 | 226.3 (1.7) | 247.2 (1.6) | 267.1 (1.9) |
| | 90 | 251.0 (1.6) | 272.1 (2.3) | 295.2 (4.0) |
| | 95 | 265.4 (4.7) | 287.7 (4.4) | 311.5 (5.2) |
| **WHITE** | | | | |
| Average Proficiency | | 197.6 (1.3) | 216.0 (1.0) | 230.5 (1.5) |
| Standard Deviation | | 40.2 (0.7) | 42.2 (0.7) | 47.9 (1.1) |
| Percentiles | 5 | 130.5 (2.1) | 145.9 (3.2) | 150.8 (2.8) |
| | 10 | 146.0 (1.4) | 162.0 (1.7) | 169.5 (3.2) |
| | 25 | 171.7 (1.2) | 188.1 (1.3) | 199.5 (1.7) |
| | 50 | 198.1 (1.6) | 216.4 (1.4) | 231.4 (1.2) |
| | 75 | 224.8 (2.0) | 244.8 (1.1) | 262.9 (1.7) |
| | 90 | 248.4 (2.7) | 269.4 (1.8) | 290.5 (3.0) |
| | 95 | 261.8 (1.9) | 284.2 (2.8) | 307.4 (2.1) |
| **BLACK** | | | | |
| Average Proficiency | | 168.8 (1.9) | 187.5 (2.2) | 200.7 (2.3) |
| Standard Deviation | | 41.8 (1.1) | 41.3 (1.3) | 45.7 (1.8) |
| Percentiles | 5 | 97.3 (3.2) | 119.3 (4.1) | 125.3 (6.2) |
| | 10 | 114.0 (3.2) | 136.4 (3.5) | 142.1 (3.0) |
| | 25 | 141.5 (2.3) | 159.8 (2.8) | 169.9 (3.8) |
| | 50 | 169.6 (2.1) | 186.8 (3.6) | 200.4 (3.9) |
| | 75 | 196.8 (2.4) | 215.8 (3.7) | 231.9 (3.1) |
| | 90 | 221.5 (3.4) | 239.8 (3.1) | 258.1 (3.6) |
| | 95 | 237.0 (3.5) | 255.6 (4.8) | 275.1 (9.2) |
| **HISPANIC** | | | | |
| Average Proficiency | | 178.2 (2.0) | 192.4 (2.1) | 204.9 (3.5) |
| Standard Deviation | | 42.3 (1.3) | 44.1 (1.4) | 50.2 (2.8) |
| Percentiles | 5 | 106.0 (4.5) | 118.4 (4.9) | 121.5 (6.8) |
| | 10 | 123.1 (3.6) | 135.5 (3.5) | 141.0 (5.7) |
| | 25 | 150.6 (2.4) | 163.3 (2.5) | 172.9 (4.9) |
| | 50 | 179.6 (1.9) | 192.9 (2.3) | 204.8 (3.9) |
| | 75 | 206.9 (3.2) | 223.2 (3.3) | 237.5 (6.9) |
| | 90 | 231.0 (3.8) | 248.5 (5.3) | 269.6 (8.3) |
| | 95 | 244.6 (4.1) | 263.5 (4.0) | 290.4 (11.8) |

Standard errors are presented in parentheses. It can be said with 95 percent certainty that for each population of interest, the percentage of students at each score point is within ± 2 standard errors of the estimated value.

# Grade 4: Percentages of Students at Each Score Point, Means, and Standard Errors

| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better | Mean |
|---|---|---|---|---|---|---|---|---|
| **Plants** | 4.7 (0.5) | 13.2 (0.9) | 38.4 (1.4) | 43.7 (1.4) | Not applicable | 82.1 (0.9) | 43.7 (1.4) | 2.2 (0.0) |
| **Ghost Story** | | | | | | | | |
| Short version | 4.6 (0.5) | 9.4 (0.8) | 77.0 (1.3) | 8.8 (0.9) | 0.3 (0.1) | 86.0 (0.9) | 9.1 (0.9) | 1.9 (0.0) |
| Long version | 3.1 (0.8) | 8.9 (1.2) | 71.0 (1.9) | 16.4 (1.4) | 0.6 (0.3) | 88.1 (1.4) | 17.1 (1.5) | 2.0 (0.0) |
| **Spaceship** | | | | | | | | |
| Short version | 8.3 (0.6) | 24.1 (1.0) | 40.3 (1.3) | 26.3 (1.1) | 1.0 (0.3) | 67.6 (1.1) | 27.3 (1.1) | 1.9 (0.0) |
| Long version | 7.4 (1.1) | 18.7 (1.6) | 37.5 (2.3) | 33.7 (2.3) | 2.7 (0.7) | 74.0 (1.8) | 36.4 (2.5) | 2.1 (0.0) |
| **Radio Station** | 10.9 (0.7) | 41.7 (1.1) | 30.4 (0.9) | 16.9 (0.9) | 0.1 (0.1) | 47.5 (1.2) | 17.0 (0.9) | 1.5 (0.0) |
| **Summary of Story** | 6.0 (0.5) | 12.8 (0.9) | 60.9 (1.4) | 18.7 (1.0) | 1.5 (0.4) | 81.2 (1.0) | 20.3 (1.2) | 1.9 (0.0) |
| **Report on an Animal** | | | | | | | | |
| Short version | 5.5 (0.6) | 16.6 (1.1) | 36.5 (1.5) | 39.2 (1.7) | 2.2 (0.4) | 77.9 (1.1) | 41.4 (1.8) | 2.2 (0.0) |
| Long version | 5.1 (0.7) | 17.0 (1.7) | 31.0 (2.2) | 41.1 (2.3) | 5.9 (1.0) | 78.0 (1.7) | 47.0 (2.3) | 2.3 (0.0) |
| **Three Wishes** | 6.5 (0.6) | 12.9 (0.7) | 59.3 (1.1) | 20.8 (1.3) | 0.6 (0.2) | 80.6 (0.9) | 21.3 (1.3) | 1.9 (0.0) |

Standard errors are presented in parentheses. Standard errors of less than 0.05 are rounded to 0.0. It can be said with 95 percent certainty that for each population of interest, the percentage of students at each score point is within ± 2 standard errors of the estimated value.

# Grade 8: Percentages of Students at Each Score Point, Means, and Standard Errors

| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better | Mean |
|---|---|---|---|---|---|---|---|---|
| **Food on the Frontier** | 3.3 (0.4) | 20.7 (1.0) | 60.3 (1.1) | 14.7 (0.9) | 0.9 (0.2) | 75.9 (1.1) | 15.7 (0.9) | 1.9 (0.0) |
| **Ghost Story** | | | | | | | | |
| Short Version | 3.8 (0.6) | 5.2 (0.6) | 58.5 (1.4) | 30.9 (1.3) | 1.6 (0.4) | 91.0 (0.8) | 32.5 (1.3) | 2.2 (0.0) |
| Long Version | 2.1 (0.6) | 3.2 (0.5) | 44.1 (1.8) | 43.7 (2.0) | 6.9 (1.3) | 94.7 (0.8) | 50.6 (1.7) | 2.5 (0.0) |
| **Dissecting Frogs** | 2.0 (0.3) | 10.2 (0.8) | 56.5 (1.0) | 29.4 (1.1) | 1.9 (0.3) | 87.8 (0.8) | 31.3 (1.1) | 2.2 (0.0) |
| **Radio Station** | 12.1 (0.8) | 26.2 (1.1) | 35.0 (1.2) | 25.5 (1.1) | 1.2 (0.2) | 61.7 (1.1) | 26.7 (1.1) | 1.7 (0.0) |
| **Recreation Opportunities** | | | | | | | | |
| Short Version | 5.1 (0.6) | 49.2 (1.3) | 31.6 (1.2) | 13.6 (0.9) | 0.5 (0.2) | 45.6 (1.4) | 14.0 (0.9) | 1.5 (0.0) |
| Long Version | 3.6 (0.7) | 48.7 (2.2) | 28.4 (2.3) | 17.7 (1.6) | 1.7 (0.4) | 47.7 (2.3) | 19.3 (1.7) | 1.7 (0.0) |
| **Favorite Story** | 6.3 (0.5) | 9.5 (0.6) | 59.2 (1.0) | 23.5 (0.9) | 1.5 (0.2) | 84.1 (0.8) | 25.0 (0.9) | 2.0 (0.0) |
| **TV Viewing Habits** | | | | | | | | |
| Short Version | 4.2 (0.5) | 22.1 (1.2) | 42.2 (1.1) | 30.8 (1.0) | 0.6 (0.2) | 73.6 (1.2) | 31.5 (1.0) | 2.0 (0.0) |
| Long Version | 2.2 (0.6) | 18.6 (1.5) | 38.9 (1.9) | 35.4 (2.2) | 4.9 (1.1) | 79.2 (1.5) | 40.3 (2.3) | 2.2 (0.0) |
| **Memorable Incident** | 2.8 (0.3) | 17.3 (1.1) | 42.0 (1.1) | 33.8 (1.2) | 4.1 (0.4) | 79.9 (1.1) | 37.9 (1.2) | 2.2 (0.0) |

Standard errors are presented in parentheses. Standard errors of less than 0.05 are rounded to 0.0. It can be said with 95 percent certainty that for each population of interest, the percentage of students at each score point is within ± 2 standard errors of the estimated value. **Note:** The percentage of "not rated" responses to the Radio Station task is higher than for the other tasks because this appeared as the second task in a block that contained two tasks.

# Grade 12: Percentages of Students at Each Score Point, Means, and Standard Errors

| | Not Rated | Unsatis-factory | Minimal | Adequate | Elabo-rated | Minimal or Better | Adequate or Better | Mean |
|---|---|---|---|---|---|---|---|---|
| **Food on the Frontier** | 3.6 (0.5) | 13.9 (1.0) | 55.3 (1.7) | 23.0 (1.5) | 4.2 (0.6) | 82.5 (1.1) | 27.2 (1.7) | 2.1 (0.0) |
| **Ghost Story** | | | | | | | | |
| Short Version | 5.3 (0.6) | 6.2 (0.7) | 48.3 (1.5) | 37.1 (1.7) | 3.1 (0.5) | 88.5 (1.0) | 40.1 (1.7) | 2.3 (0.0) |
| Long Version | 4.0 (0.9) | 4.3 (0.7) | 36.0 (2.3) | 48.4 (2.6) | 7.4 (1.4) | 91.7 (1.0) | 55.7 (2.6) | 2.5 (0.0) |
| **Bike Lane** | 4.3 (0.6) | 27.2 (1.4) | 44.8 (1.4) | 19.8 (1.1) | 3.9 (0.5) | 68.5 (1.6) | 23.6 (1.0) | 1.9 (0.0) |
| **Space Program** | 18.4 (0.9) | 16.7 (0.9) | 37.6 (1.2) | 24.6 (1.1) | 2.7 (0.4) | 64.9 (1.1) | 27.3 (1.1) | 1.6 (0.0) |
| **Recreation Opportunities** | | | | | | | | |
| Short Version | 5.4 (0.7) | 33.0 (1.5) | 36.1 (1.2) | 23.8 (1.5) | 1.9 (0.3) | 61.7 (1.5) | 25.6 (1.5) | 1.8 (0.0) |
| Long Version | 4.7 (1.1) | 28.7 (2.2) | 30.6 (1.8) | 30.8 (1.9) | 5.2 (1.2) | 66.6 (2.2) | 36.0 (2.2) | 2.0 (0.1) |
| **Favorite Story** | 8.5 (0.7) | 11.5 (0.8) | 44.9 (1.3) | 29.4 (1.1) | 5.8 (0.6) | 80.0 (1.1) | 35.1 (1.2) | 2.1 (0.0) |
| **TV Viewing Habits** | | | | | | | | |
| Short Version | 5.2 (0.7) | 15.9 (0.9) | 43.1 (1.4) | 32.8 (1.3) | 3.0 (0.4) | 78.9 (1.1) | 35.8 (1.4) | 2.1 (0.0) |
| Long Version | 2.7 (0.8) | 13.9 (1.6) | 38.8 (2.0) | 33.4 (2.1) | 11.2 (1.4) | 83.4 (1.7) | 44.6 (2.5) | 2.4 (0.0) |
| **Memorable Incident** | 4.0 (0.7) | 9.1 (0.7) | 32.4 (1.3) | 42.9 (1.7) | 11.6 (0.6) | 86.9 (1.2) | 54.5 (1.6) | 2.5 (0.0) |

Standard errors are presented in parentheses. Standard errors of less than 0.05 are rounded to 0.0. It can be said with 95 percent certainty that for each population of interest, the percentage of students at each score point is within ± 2 standard errors of the estimated value. **Note:** The percentage of "not rated" responses to the Space Program task is higher than for the other tasks because this appeared as the second task in a block that contained two tasks.

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