Chapter 2
Reading

State Standards

The majority of state reading standards across the nation emphasize specific reading skills. The skills associated with word meanings (vocabulary) and skills connected to reading literary text are addressed explicitly. However, very few state standards directly address the skills connected to reading informational text. The specifications for the EPAS Reading Tests stipulate that questions about context-dependent vocabulary as well as both literary and informational passages are to be used in the assessments.

While state standards differ in specificity and organization, most integrate the language arts—reading, writing, listening, speaking, and viewing. State standards tend to agree on the same general literacy goals that ACT identified during the redevelopment of the ACT Assessment through Project Silver in the 1980s and that continue to be verified by subsequent ACT National Curriculum Surveys. The following reading abilities maintain a place in reading standards across the United States.

- Use referring and reasoning skills to determine main ideas
- Locate and interpret significant details
- Understand sequences of events
- Make comparisons
- Comprehend cause-effect relationships
- Determine the meaning of context-dependent words, phrases, and statements
- Draw generalizations
- Analyze the author's or narrator's voice and method

All of these skills are measured by the EPAS Reading Tests across reading passages selected from prose fiction, the social sciences, the humanities, and (in the ACT Assessment) the natural sciences.

The EPAS Reading Tests ask test takers to read a variety of texts that span a range of content areas and that are representative of the cultural diversity of the United States, and to apply many different strategies in the act of comprehending, interpreting, and evaluating those texts. In so doing, the EPAS Reading Tests stand in substantial conformity with state reading standards and also with salient provisions of the NCTE/IRA *Standards for the English Language Arts* and the National Assessment of Educational Progress Reading Framework.

Educator Surveys

ACT developed four Reading surveys (three for the middle school/junior high and high school levels and one for the postsecondary level) and sent them to 3,599 middle school/junior high and high school teachers, 500 secondary English department chairs, and 1,600 postsecondary faculty teaching entry-level courses. The primary source used in selecting these samples was Market Data Retrieval (MDR), a company specializing in the education market. Survey recipients were sampled from the MDR database using selection criteria provided by ACT to ensure that a variety of geographic regions and schools were represented.

Table 2.1 lists the Reading courses that ACT asked MDR to use as selection criteria. Reading surveys were mailed to the number of faculty members and department chairs indicated in the table. In all, 5,699 Reading surveys were mailed.

Table 2.1
Reading Courses Used as MDR Sample Selection Criteria

Sample	Courses	Sample Size
Middle School/Junior High	*English Language Arts, Literature, Reading*	1,200
High School	*English Language Arts, Literature, Reading*	2,399
Postsecondary	*Survey of American Literature*	300
	Introduction to Literature	300
	U.S. History Survey	300
	American Government and Politics	300
	Composition and Rhetoric	400
Department Chairs	*Middle School/Junior High English Language Arts, High School English Language Arts*	500

If a postsecondary Reading survey was mailed to a recipient who was not currently teaching a freshman-level course, the instructions asked that the recipient forward the survey to a faculty member who was currently teaching such a course. Individual survey responses were kept confidential.

A total of 1,192 Reading surveys were returned completed, yielding an overall response rate of 21% for the four surveys. The response rates varied slightly across the four sample groups, as shown in Table 2.2.

The survey respondents included individuals from all 50 states and the District of Columbia. The representation of the total respondent pool by region was 29.7% from the East, 31.5% from the Midwest, 16.6% from the Southwest, and 22.2% from the West. Analyses of the middle school/junior high, high school, and postsecondary respondent pools determined that they represented a wide variety of geographic locations and institutions. The department chair respondent pool, however, was found to be biased toward smaller schools. For this reason, survey results for the department chairs are not included in the discussion that follows.

Respondents to the Reading surveys were asked to consider lists of contents and process skills that are, in part, reflective of the content specifications for ACT's EPAS Reading Tests. All respondents were asked to indicate the level of importance of each content or skill on a scale of 1 to 5, where 1 represented *not important,* 3 represented *moderately important,* and 5 represented *very important.* Middle school/junior high and high school respondents were asked to indicate whether they taught each content or skill in a particular course they named and to rate the importance placed on each skill or content in that course. Postsecondary faculty were asked to rate each content or skill in terms of its importance as a prerequisite to success in a particular course they named.

Survey items relating to contents addressed students' developed ability to read and understand 14 different types of texts. These included the 4 broad categories of texts appearing on the EPAS Reading Tests—prose fiction, humanities-based texts, social sciences-based texts, and (on the ACT Assessment only) natural sciences-based texts—as well as 10 specific types of texts, most of which, such as poetry/drama, technical documents, and editorial cartoons, do not appear on the EPAS Reading Tests. In the latter case, the goal was to help determine whether additional text types should be considered for inclusion on the tests. Respondents were also asked to consider 64 reading skills. These skills ran the gamut from simply referring to text and recalling information to synthesizing and evaluating information presented in text. Many of the skills correspond directly with the content specifications of the Reading Tests while others represent skills either only indirectly assessed by the tests or not presently addressed by them at all. As with the 10 text types, this latter set of skills was included to help determine whether additional reading skills should be incorporated into the tests.

The Reading surveys asked respondents a variety of background questions. The middle school/junior high and high school teachers were asked to name a particular course they were teaching and to describe the students in that course as primarily college bound, primarily non-college bound, or a combination of both. They were also asked to name the primary textbook series (if any) they were using in the course and to state how many years they had been teaching. Postsecondary respondents were asked to name a particular course they were teaching, to describe the course as either entry-level, honors/advanced placement, or other (specifying the level), and to name the primary textbook series (if any) they were using in the course.

The **middle school/junior high teachers** rated three of the four broad content areas included on all or some of the EPAS Reading Tests as at least moderately important—*prose fiction* (4.74), *humanities-based texts* (3.43), and *social sciences-based texts* (3.16)—while giving *natural sciences-based texts* a rating of slightly below moderately

Table 2.2
Reading Survey Types and Response Rates

Survey type	Number mailed	Number returned	Response rate
Middle School/Junior High	1,200	249	21%
High School	2,399	495	21%
Postsecondary	1,600	297	19%
Department Chairs	500	151	30%
Total	5,699	1,192	21%

important (2.74). Yet in terms of the percent of teachers who say they taught a given content in the course they named, only *prose fiction* (96%) and *humanities-based texts* (58%) are consistent with the importance ratings, while the percent taught for *social sciences-based texts* (34%) and *natural sciences-based texts* (15%) is at odds with the relatively high importance ratings teachers gave these content areas. The low percent of teachers indicating that they taught the latter two content areas is unsurprising, however, given that language arts teachers were the ones targeted for the secondary-level surveys.

In terms of specific text types, middle school/junior high teachers gave their highest ratings to *poetry/drama* (4.21, 88%), *news and feature articles* (3.93, 76%), and *"functional" texts* (3.89, 72%). ACT currently uses news and feature articles in its EPAS Reading Tests, while "functional" texts are probably inappropriate for a test of academic reading skill. Poetry and drama, however, are viable parts of academic instruction that, based on the survey, merit consideration for the EPAS Reading Tests. Middle school/junior high teachers' lowest ratings went to *advertisements* (3.35, 55%), *editorial cartoons* (2.98, 39%), and *television shows and movies* (2.93, 42%), none of which are used in the Reading Tests. Noteworthy is the fact that even these teachers' lowest-rated text types are still rated moderately important.

Middle school/junior high teachers gave their highest ratings to the following reading process skills: *Making inferences from the text concerning main idea(s)* (4.81, 98%), *Recognizing and recalling main ideas by summarizing* (4.81, 99%), and *Drawing conclusions from information given* (4.81, 99%). All 3 of these skills are currently measured by the EPAS Reading Tests. In fact, as Table 2.5 and the list of content specifications show, all 10 of this respondent group's highest-rated skills are directly mentioned in or inferable from the Reading Tests' specifications. Middle school/junior high teachers gave their lowest ratings to *Judging a text by assessing the risks and benefits of policies or actions it proposes* (3.09, 27%), *Evaluating information in a text for fallacies* (3.06, 24%), and *Judging a text by using different critical lenses or stances* (2.94, 21%). Of these, only *Evaluating information in a text for fallacies* is currently measured by the Reading Tests. While even the 3 lowest-rated skills received ratings of moderately important, they were infrequently taught by this group of respondents. Generally speaking, *evaluating* and *judging* skills received relatively low ratings from all respondent groups.

High school teachers gave ratings similar to those from middle school/junior high teachers to the four broad content areas: *prose fiction* (4.75, 97%) was rated most highly, followed by *humanities-based texts* (3.84, 75%), *social sciences-based texts* (3.33, 40%), and *natural sciences-based texts* (2.57, 10%). As with the former group of teachers, the high school instructors' ratings of *social sciences-based texts* and *natural sciences-based texts* were moderately to markedly out of line with the percent taught.

High school teachers responding to the list of 10 specific text types gave their highest ratings to *poetry/drama* (4.42, 93%), *texts from earlier time periods* (4.09, 79%), and *research studies* (3.69, 61%). Research summaries and texts from earlier time periods are within current EPAS Reading Test specifications, while poetry and drama, as mentioned earlier, are not. This same group of respondents gave their lowest ratings to *technical documents* (2.95, 23%), *advertisements* (2.87, 34%), and *editorial cartoons* (2.80, 31%). None of these text types are used on the Reading Test. Note that *advertisements* and *editorial cartoons* were among the three lowest-rated text types for both groups of secondary-level teachers.

Reading process skills receiving the highest ratings from high school teachers were *Drawing conclusions from information given* (4.83, 100%), *Making inferences from the text concerning main idea(s)* (4.81, 99%), and *Making inferences from the text concerning details that support the main idea(s)* (4.74, 99%). All three are part of the EPAS Reading Tests' specifications. As was the case with the middle school/junior high teachers, all of the high school teachers' 10 highest-rated skills (see Table 2.5 or 2.6) are directly or indirectly represented in the Reading Tests' specifications. Skills receiving the lowest ratings from high school teachers were *Judging a text by using different critical lenses or stances* (3.47, 41%), *Interpreting information from graphs, charts, and diagrams* (3.40, 41%), and *Comparing reviews of literature, film, and performances with one's own response* (3.39, 54%). High school teachers considered even their lowest-rated skills more than moderately important; the high school teachers also taught these skills with moderate frequency. None of these skills are currently a part of the Reading Tests' specifications, although graphs, charts, and diagrams do appear in ACT's EPAS Science Tests.

College faculty considered *social sciences-based texts* (3.65) to be the broad content area most important for students to be able to demonstrate an understanding of prior to attending the class named by the respondents. Regarding the other content areas, college faculty rated *humanities-based texts* (3.55) next most highly, followed by *prose fiction* (2.82) and *natural sciences-based texts* (2.27). The low rating of *prose fiction* compared to the ratings given by the two groups of secondary-level teachers is likely attributable in large part to sampling differences: the college faculty who completed the survey included a high proportion of composition/rhetoric and social science teachers, while very few literature teachers responded (probably because they were not teaching an entry-level course and either routed to the survey to someone else or failed to complete it).

In terms of specific text types, college faculty gave their highest ratings to *editorials/opinion pieces* (3.71), *news and feature articles* (3.66), and *texts from earlier time periods* (3.13). All three of these are encompassed within the EPAS Reading Tests' specifications. Faculty gave their lowest ratings to *advertisements* (2.52), *poetry/drama* (2.40), and

technical documents (2.18). None of these are presently on the Reading Tests. The discrepancy between secondary teachers' and college instructors' ratings for *poetry/drama* is, again, likely attributable in large measure to the presence of a large number of composition/rhetoric and social science teachers and the near-absence of literature teachers in the college sample. Noteworthy also are the overall lower ratings college faculty gave to the broad content areas and specific text types. The median rating for the college faculty in these combined areas was 2.75, while it was 3.52 for middle school/junior high teachers and 3.50 for high school teachers. This is likely due in part to the fact that college faculty were asked to identify prerequisites while secondary-level teachers were asked to rate contents and text types in terms of their importance in their teaching of a particular class.

College faculty gave their highest ratings to the reading process skills of *Drawing conclusions from information given* (4.66), *Making inferences from the text concerning main idea(s)* (4.65), and *Making inferences from the text concerning details the support the main idea(s)* (4.56). All 3 skills are included in the specifications for the EPAS Reading Tests, and, indeed, as with the other two groups, all 10 of the college faculty's highest-rated skills are part of the current specifications of the Reading Tests. Faculty rated lowest the skills of *Evaluating information in a text for significance or importance* (1.91), *Evaluating information in a text for sufficiency of evidence in support of an argument or claim* (1.90), and *Evaluating information in a text for general soundness of reasoning* (1.88). These ratings are appreciably lower than those given to the lowest-rated skills of either group of secondary-level teachers, and, in fact, the median rating for all 64 skills was lowest for the college faculty (2.80); in contrast, the median rating was 3.96 for middle school/junior high teachers and 4.19 for high school teachers. One possible explanation is that college faculty may not expect incoming students to have many of these skills as prerequisites; instead, these instructors may plan to teach these skills during entry-level courses.

Table 2.3 illustrates the ranking, rating, and (for secondary-level teachers) percent taught for the four broad reading content areas, broken down by respondent group.

Table 2.4 gives the ranking, rating, and (where applicable) percent taught for the 10 specific text types, again broken down by respondent group.

Table 2.3
Ranking (Rating, % Taught) of Broad Reading Content Areas, by Respondent Group

Rank (1 = most important)	Middle school & junior high school teachers		High school teachers		College faculty	
1	Prose Fiction	(4.74, 96%)	Prose Fiction	(4.75, 97%)	Social Sciences-Based Texts	(3.65)
2	Humanities-Based Texts	(3.43, 58%)	Humanities-Based Texts	(3.84, 75%)	Humanities-Based Texts	(3.55)
3	Social Sciences-Based Texts	(3.16, 34%)	Social Sciences-Based Texts	(3.33, 40%)	Prose Fiction	(2.82)
4	Natural Sciences-Based Texts	(2.74, 15%)	Natural Sciences-Based Texts	(2.57, 10%)	Natural Sciences-Based Texts	(2.27)

Table 2.4
Ranking (Rating, % Taught) of Specific Text Types, by Respondent Group

Rank (1 = most important)	Middle school & junior high school teachers		High school teachers		College faculty	
1	Poetry/Drama	(4.21, 88%)	Poetry/Drama	(4.42, 93%)	Editorials/Opinion Pieces	(3.71)
2	News and Feature Articles	(3.93, 76%)	Texts from Earlier Time Periods	(4.09, 79%)	News and Feature Articles	(3.66)
3	“Functional” Texts	(3.89, 72%)	Research Studies	(3.69, 61%)	Texts from Earlier Time Periods	(3.13)
4	Editorials/Opinion Pieces	(3.74, 73%)	Editorials/Opinion Pieces	(3.64, 68%)	Research Studies	(3.12)
5	Texts from Earlier Time Periods	(3.63, 59%)	News and Feature Articles	(3.58, 60%)	Editorial Cartoons	(2.67)
6	Research Studies	(3.60, 53%)	“Functional” Texts	(3.42, 58%)	“Functional” Texts	(2.66)
7	Technical Documents	(3.36, 36%)	Television Shows and Movies	(2.69, 50%)	Television Shows and Movies	(2.56)
8	Advertisements	(3.35, 55%)	Technical Documents	(2.95, 23%)	Advertisements	(2.52)
9	Editorial Cartoons	(2.98, 39%)	Advertisements	(2.87, 34%)	Poetry/Drama	(2.40)
10	Television Shows and Movies	(2.93, 42%)	Editorial Cartoons	(2.80, 31%)	Technical Documents	(2.18)

Tables 2.5 and 2.6 compare the 10 highest-rated reading process skills for the various respondent groups. Note that all three groups shared 4 skills in common (these have been italicized in both tables) and that the middle school/junior high and high school teachers had a total of 7 skills in common. As mentioned above, all of these skills are a direct part of or are embedded within the EPAS Reading Tests' specifications. See Table 2.9 for the full response data.

Table 2.5
Reading Skills Receiving the Highest Mean Importance Ratings by Middle School/Junior High Teachers and by High School Teachers

Rank (1 = most important)	Middle school & junior high school teachers		High school teachers	
1	*Making inferences from the text concerning main idea(s)*	(4.81, 98%)	*Drawing conclusions from information given*	(4.83, 100%)
2	*Recognizing and recalling main ideas by summarizing*	(4.81, 99%)	*Making inferences from the text concerning main idea(s)*	(4.81, 99%)
3	*Drawing conclusions from information given*	(4.81, 99%)	*Making inferences from the text concerning details that support the main idea(s)*	(4.74, 99%)
4	*Making inferences from the text concerning details that support the main idea(s)*	(4.79, 98%)	*Recognizing and recalling main ideas by summarizing*	(4.68, 96%)
5	Determining specific meanings of words and phrases from the context in which they appear	(4.74, 98%)	Determining specific meanings of words and phrases from the context in which they appear	(4.67, 98%)
6	Recognizing and recalling specific details	(4.73, 99%)	Making inferences from the text concerning cause-effect relationships	(4.67, 97%)
7	Predicting outcomes	(4.71, 97%)	Identifying the author's purpose	(4.67, 97%)
8	Recognizing and recalling main ideas by selecting key words in sentences and paragraphs	(4.70, 96%)	Recognizing and recalling comparisons	(4.64, 99%)
9	Making inferences from the text concerning cause-effect relationships	(4.70, 98%)	Recognizing and recalling specific details	(4.64, 99%)
10	Recognizing and recalling main ideas by selecting topic sentences	(4.69, 95%)	Identifying literal and figurative meanings where appropriate	(4.63, 97%)

Overall, the survey results indicate that the aspects of reading that the respondents think are central to classroom work are the same aspects emphasized in the EPAS Reading Tests. Although the design of the 2003 surveys differs from that of their 1998 predecessors, the 2003 results give no evidence of radical changes in the curriculum. In fact, despite the increased length of the 2003 surveys and some wording changes to items remaining from 1998, middle school/junior high respondents rated 6 of the same skills in both 1998 and 2003 among their 10 most highly rated, while the high school teachers had 7 of 10 and the college faculty 9 of 10 skills in common across studies.

Table 2.6
Reading Skills Receiving the Highest Mean Importance Ratings by High School Teachers and by College Faculty

Rank (1 = most important)	High school teachers		College faculty	
1	*Drawing conclusions from information given*	(4.83, 100%)	*Drawing conclusions from information given*	(4.66)
2	*Making inferences from the text concerning main idea(s)*	(4.81, 99%)	*Making inferences from the text concerning main idea(s)*	(4.65)
3	*Making inferences from the text concerning details that support the main idea(s)*	(4.74, 99%)	*Making inferences from the text concerning details that support the main idea(s)*	(4.56)
4	*Recognizing and recalling main ideas by summarizing*	(4.68, 96%)	Distinguishing between fact, opinion, and reasoned judgment	(4.53)
5	Determining specific meanings of words and phrases from the context in which they appear	(4.67, 98%)	Recognizing and recalling cause-effect relationships	(4.49)
6	Making inferences from the text concerning cause-effect relationships	(4.67, 97%)	*Recognizing and recalling main ideas by summarizing*	(4.45)
7	Identifying the author's purpose	(4.67, 97%)	Making inferences from the text concerning cause-effect relationships	(4.44)
8	Recognizing and recalling comparisons	(4.64, 99%)	Recognizing and recalling comparisons	(4.41)
9	Recognizing and recalling specific details	(4.64, 99%)	Identifying the author's purpose	(4.38)
10	Identifying literal and figurative meanings where appropriate	(4.63, 97%)	Recognizing and recalling main ideas by selecting topic sentences	(4.25)

Panel Discussions

In July 2003, ACT held a Reading Curriculum Panel in Iowa City. The panel members were selected to ensure a broad representation of secondary and postsecondary institutions. The panel included some of the foremost experts in the teaching of reading in both English language arts courses and other content areas. Table 2.7 identifies the panelists.

Prior to attending the panel, each participant wrote a brief paper that described his or her perceptions of current and emerging trends in reading curriculum and instruction; interpreted the curriculum survey data; and recommended changes to the current EPAS Reading Tests. ACT staff circulated the set of panelist papers to the entire group prior to the July 11 meeting. At the meeting, ACT staff discussed the three main topics identified above with the panelists, attempting to reach consensus on the key issues relating to the reading curriculum and the tests.

Panelists gave a strong endorsement of the present EPAS Reading Tests and recommended that no skills currently assessed be dropped from the test specifications. The panelists' suggestions for potential enhancements to the Reading Tests were discussed in detail. ACT is devoting further consideration and research effort to the most promising of the ideas offered by the panelists and generated by the panel discussion.

Table 2.7
ACT's 2003 Reading Curriculum Panelists

Name	Title and affiliation
Mr. Bruce Damasio	Social Studies Teacher and Department Chair, Liberty High School, Eldersburg, Maryland
Ms. Barbara Fowler	Reading Specialist and Adjunct Instructor, Longview Community College, Lee's Summit, Missouri
Dr. Donald L. Hatcher	Professor of Philosophy; Co-Director, Freshman Critical Thinking/Composition Program; and Director, Center for Critical Thinking, Baker University, Baldwin, Kansas
Ms. Alicia Hernandez	Professor of English, Rio Hondo College, Whittier, California
Ms. Carol Jago	English Teacher, Santa Monica (California) High School
Ms. Ronda Marshall	Language Arts Teacher, Northwest Junior High School, Iowa City, Iowa
Dr. David O'Brien	Professor of Education, University of Minnesota–Twin Cities
Ms. Marilyne Ross	Reading Specialist, Orange County Public Schools, Orlando, Florida
Ms. Annette Sample	English Teacher, George Washington Carver High School for Engineering and Science, Philadelphia, Pennsylvania
Dr. Cynthia (Hynd) Shanahan	Professor of Education, University of Illinois at Chicago
Dr. Peter Thacker	Literacy Instruction Specialist, Jefferson High School, Portland, Oregon

Reading Test Specifications

The text content areas, number of passages, passage lengths, and number (and proportion) of items for the EXPLORE, PLAN, and ACT Assessment Reading Tests are summarized in Table 2.8.

The detailed description of the test content given on page 30 is presented to give an overview of the domains of test content that are assessed. It is not presented as a guide to instruction or as a specific list of topics that will be covered in any particular test form. When a test form is produced, test items are sampled from these domains.

Table 2.8
Reading Test Specifications

	Testing program		
Content area	**EXPLORE**	**PLAN**	**ACT Assessment**
Prose Fiction	10 (.33)	8 (.32)	10 (.25)
Humanities	10 (.33)	9 (.36)	10 (.25)
Social Sciences	10 (.33)	8 (.32)	10 (.25)
Natural Sciences			10 (.25)
Total	**30**	**25**	**40**
Passages	3	3	4
Passage Length	500 words	500 words	750 words

Reading Continuum Content and Cognitive Level Descriptions

Cognitive Levels

Questions in the Reading Tests are classified in the general categories of Referring and Reasoning.

Referring. The questions in this category ask about material explicitly stated in a passage. These questions are designed to measure literal reading comprehension. A question is classified in the Referring category if the information required to answer it is directly given in the passage text. In such questions, there are usually relationships between the language of the passage and that of the question, and the answer to the question is typically evident in a single sentence, or two adjacent sentences, in the passage. Some Referring questions paraphrase the language of the passage.

Main ideas
- Recognizing the main idea of a passage
- Recognizing the main idea of a paragraph or paragraphs

Significant details
- Recognizing the information in a written passage that answers the questions who, what, where, when, why, and how

Relationships
- Recognizing sequences
- Recognizing cause-effect relationships
- Recognizing comparative relationships (comparisons and contrasts)

Reasoning. The questions in this category ask about meaning implicit in a passage and require cogent reasoning about a passage. These questions are designed to measure "meaning making" by logical inference, analysis, and synthesis. A question is classified in the Reasoning category if it requires inferring or applying a logical process to elicit an answer from the passage, or if it demands that the examinee combine many statements in the passage or interpret entire sections of the text.

Inferences from the text
- Inferring the main idea or purpose of a passage
- Inferring the main idea or purpose of a paragraph or paragraphs
- Showing how details are related to the main idea (e.g., how they support the main idea)
- Inferring sequences
- Inferring cause-effect relationships

Critical understanding of the text
- Drawing conclusions from information given
- Making comparisons and contrasts using stated information
- Making appropriate generalizations
- Recognizing logical fallacies, rhetorical flaws, or limitations in texts
- Recognizing stereotypes
- Understanding point of view
- Distinguishing between fact and opinion

Vocabulary
- Determining specific meanings of words or short phrases within the context of a passage

Content Areas

The content of the Reading Tests ranges widely among topics under the content areas named in Table 2.8. As is true of the other content domains, the stimulus material for the Reading Tests becomes more challenging with the increase in the grade level being assessed; as Table 2.8 shows, at the 8th-/9th- and 10th-grade levels, three content areas are used to assess reading skill (prose fiction, humanities, and social sciences). At the 11th-/12th-grade level, natural sciences text material is added.

Prose fiction. The questions in this area are based on intact short stories or passages from short stories or novels.

Humanities. The questions in this area are based on passages from memoirs, personal essays, and essays on architecture, art, dance, ethics, film, language, literary criticism, music, philosophy, radio, television, or theater. Passages describe or analyze works of art, ideas, or values.

Social sciences. The questions in this area are based on passages in anthropology, archaeology, biography, business, economics, education, geography, history, political science, psychology, or sociology. Passages typically present information gathered by research into written records or survey sampling rather than data gained by scientific experimentation.

Natural sciences. The questions in this area are based on passages in anatomy, astronomy, biology, botany, chemistry, ecology, geology, medicine, meteorology, microbiology, natural history, physiology, physics, technology, or zoology. Passages present a science topic with a lucid explanation of its significance.

Question Ordering

Reading Test questions are arranged according to a protocol that places more general questions ahead of more specific questions and that places questions about portions of the passage in the order in which those portions appear in the passage. ACT adopted this protocol, with the approval of reading consultants from outside ACT and after careful consideration of the measurement issues involved, to provide examinees with as natural and logical a sequence of items as possible.

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group

	Middle school/junior high				High school				College		
Reading content	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Reading and demonstrating understanding of. . .											
prose fiction (e.g., novels, short stories)	96	4.74	0.63	1	97	4.75	0.63	1	2.82	1.41	3
humanities-based texts (e.g., the arts, philosophy, architecture, religion/ethics, literary criticism, personal essays, memoirs)	58	3.43	1.26	2	75	3.84	1.18	2	3.55	1.19	2
social sciences-based texts (e.g., history, political science, economics, psychology, business, geography, archaeology)	34	3.16	1.33	3	40	3.33	1.41	3	3.65	1.24	1
natural sciences-based texts (e.g., biology, chemistry, physics, physical sciences)	15	2.74	1.41	4	10	2.57	1.46	4	2.27	1.20	4
Reading and demonstrating understanding of. . .											
poetry/drama	88	4.21	0.98	1	93	4.42	0.91	1	2.40	1.29	9
"functional" text (e.g., brochures, business letters, maps)	72	3.89	1.14	3	48	3.42	1.40	6	2.66	1.28	6
technical documents (e.g., instructional manuals, contracts)	36	3.36	1.41	7	23	2.95	1.46	8	2.18	1.21	10
news and feature articles	76	3.93	1.08	2	60	3.58	1.27	5	3.66	1.26	2
editorials/opinion pieces	73	3.74	1.15	4	68	3.64	1.16	4	3.71	1.26	1
editorial cartoons	39	2.98	1.34	9	31	2.80	1.31	10	2.67	1.33	5
advertisements	55	3.35	1.24	8	34	2.87	1.38	9	2.52	1.31	8
television shows and movies	42	2.93	1.22	10	50	2.96	1.30	7	2.56	1.23	7
research studies	53	3.60	1.32	6	61	3.69	1.35	3	3.12	1.33	4
texts from earlier time periods (e.g., an 18th century short story, a political speech given during the Civil War)	59	3.63	1.20	5	79	4.09	1.08	2	3.13	1.36	3
Reading content median rating		3.52				3.50			2.75		

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group *(continued)*

	Middle school/junior high				High school				College		
Reading skill	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Recognizing and recalling main ideas by . . .											
selecting topic sentences	95	4.69	0.65	10	87	4.51	0.86	20	4.25	1.05	10
selecting key words in sentences and paragraphs	96	4.70	0.62	8	88	4.53	0.84	15	4.13	1.06	17
summarizing	99	4.81	0.54	2	96	4.68	0.66	4	4.45	0.85	6
Recognizing and recalling . . .											
specific details	99	4.73	0.54	6	99	4.64	0.66	9	4.14	1.02	16
narrational and chronological sequences	99	4.68	0.63	12	98	4.59	0.66	13	4.16	1.05	15
cause-effect relationships	98	4.69	0.64	11	97	4.63	0.66	11	4.49	0.79	5
comparisons	99	4.66	0.69	14	99	4.64	0.62	8	4.41	0.83	8
Making inferences from the text concerning . . .											
main idea(s)	98	4.81	0.49	1	99	4.81	0.50	2	4.65	0.71	2
details that support the main idea(s)	98	4.79	0.52	4	99	4.74	0.54	3	4.56	0.76	3
narrational and chronological sequences	95	4.65	0.62	15	96	4.61	0.70	12	4.20	1.00	14
cause-effect relationships	98	4.70	0.64	9	97	4.67	0.63	6	4.44	0.83	7
Drawing conclusions from information given	99	4.81	0.47	3	100	4.83	0.44	1	4.66	0.65	1
Predicting outcomes	97	4.71	0.59	7	96	4.53	0.78	16	3.62	1.13	22
Identifying literal and figurative meanings where appropriate	96	4.47	0.83	20	97	4.63	0.61	10	3.84	1.06	21
Determining specific meanings of words or phrases from the context in which they appear	98	4.74	0.55	5	98	4.67	0.63	5	4.23	0.91	13
Distinguishing between fact, opinion, and reasoned judgment	98	4.68	0.63	13	90	4.56	0.79	14	4.53	0.79	4
Relating own experiences to characters and events in a text	97	4.57	0.75	16	97	4.43	0.85	25	3.46	1.20	24
Using information implied in a text to make . . .											
comparisons	95	4.47	0.74	18	98	4.53	0.70	17	4.24	0.89	11
generalizations	93	4.35	0.84	23	95	4.47	0.77	23	4.24	0.88	11

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group *(continued)*

	Middle school/junior high				High school				College		
Reading skill	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Recognizing and determining the presence of and effect on a text of . . .											
stereotypes	85	4.26	0.94	26	90	4.35	0.88	26	3.90	1.10	19
point of view	96	4.47	0.78	19	95	4.52	0.74	18	4.09	1.02	18
Identifying the author's purpose	96	4.50	0.79	17	97	4.67	0.68	7	4.38	0.90	9
Recognizing and understanding the use of literary devices . . .											
satire	58	3.69	1.24	41	80	4.24	1.03	32	2.94	1.26	30
irony	79	4.05	1.13	32	91	4.47	0.84	22	2.99	1.28	28
metaphor/simile	95	4.42	0.82	21	93	4.46	0.84	24	3.07	1.29	26
foreshadowing	92	4.40	0.89	22	93	4.50	0.79	21	2.71	1.29	35
symbolism	86	4.19	1.05	28	93	4.52	0.77	19	2.93	1.31	31
Recognizing how history/culture influences a text	71	3.88	1.08	33	85	4.26	0.92	31	3.87	1.13	20
Using various strategies to monitor one's own reading	82	4.34	1.01	24	71	4.01	1.04	37	3.57	1.17	23
Comparing reviews of literature, film, and performances with one's own response	48	3.35	1.22	57	54	3.39	1.18	64	2.71	1.22	35
Analyzing interactions between main and subordinate characters and ideas in literary and informational texts (e.g., internal and external conflicts, motivations, relationships, and influences)	86	4.23	0.97	27	89	4.31	0.91	29	2.70	1.27	37
Interpreting information from graphs, charts, and diagrams, such as maps, blueprints, or schematics	56	3.75	1.25	38	41	3.40	1.35	63	2.96	1.43	29

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group *(continued)*

	Middle school/junior high				High school				College		
Reading skill	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Recognizing in a text the...											
primary mode or organizational structure (narrative, descriptive, expository, argumentative/persuasive)	82	4.26	0.98	25	83	4.15	1.00	33	2.32	1.29	47
types of claims made (e.g., factual claims, value judgments)	62	3.79	1.15	35	66	3.89	1.11	43	1.99	1.16	60
types of evidence used (e.g., experimentation, expert testimony, statistics, case studies, "common sense")	39	3.40	1.19	53	53	3.61	1.23	57	2.09	1.15	57
sources of information used (e.g., where information comes from; whether a source is primary or secondary)	54	3.64	1.16	43	67	3.88	1.20	44	1.98	1.05	61
Analyzing a text to ...											
determine the amount of prior and/or specialized knowledge a reader is expected to have on the topic	45	3.55	1.30	46	54	3.60	1.24	58	2.82	1.17	32
categorize or classify information (e.g., identifying common characteristics)	68	3.78	1.19	37	74	3.86	1.03	46	2.52	1.13	42
identify an author's unstated assumptions	56	3.51	1.29	51	75	3.95	1.05	42	2.24	1.15	50
understand how writing style conveys or shapes meaning(e.g., the use of the passive voice in writing to disguise who is acting or to distance a person from responsibility for an action)	43	3.42	1.30	52	66	3.87	1.14	45	2.55	1.30	40
identify confusing, ambiguous, or vague language	62	3.69	1.18	42	77	3.97	1.10	40	2.33	1.16	46

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group *(continued)*

	Middle school/junior high				High school				College		
Reading skill	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Evaluating information in a text for...											
specificity (appropriate level of precision is used)	37	3.27	1.26	59	52	3.63	1.26	56	2.36	1.07	44
relevance	60	3.73	1.21	39	76	4.02	1.08	36	2.04	0.99	58
significance or importance	67	3.78	1.20	36	81	4.11	1.06	35	1.91	0.96	62
fairness (opposing arguments are represented fairly)	54	3.53	1.18	49	60	3.72	1.22	53	2.11	1.03	56
appeals (e.g., to logic, emotions, morals, authority, the senses)	53	3.54	1.22	47	68	3.83	1.14	47	2.24	1.10	50
loaded language (e.g., euphemisms, gender-based words)	47	3.37	1.23	55	67	3.80	1.20	50	2.32	1.11	47
persuasive techniques/propaganda (e.g., leading questions, testimonials, sound bites)	58	3.69	1.22	40	66	3.77	1.20	52	2.30	1.15	49
fallacies (e.g., false analogy, begging the question, non sequitur, ad hominem)	24	3.06	1.28	63	47	3.57	1.32	59	2.36	1.19	44
erroneous, biased, or dubious assumptions	35	3.29	1.26	58	53	3.68	1.24	55	2.15	1.08	54
credibility and appropriateness of sources of information	48	3.61	1.29	44	69	3.96	1.18	41	2.02	1.05	59
sufficiency of evidence in support of an argument or claim	49	3.53	1.28	48	69	4.00	1.19	38	1.90	0.98	63
completeness (sufficient breadth and depth is included; no important omissions exist)	33	3.35	1.25	56	58	3.80	1.26	51	2.14	1.07	55
internal consistency	32	3.27	1.32	60	54	3.70	1.26	54	2.17	1.13	53
general soundness of reasoning	47	3.52	1.29	50	67	3.98	1.20	39	1.88	0.94	64

Table 2.9

Reading Curriculum Survey Results: Percent Taught, Mean Rating, and Rank for Each Content/Skill, by Respondent Group *(continued)*

	Middle school/junior high				High school				College		
Reading skill	% Taught	Mean rating	SD	Rank	% Taught	Mean rating	SD	Rank	Mean rating	SD	Rank
Synthesizing by...											
making connections across and between texts (e.g., by noting similarities and differences in two texts; by comparing information in a given text to other sources in a given field)	71	4.11	1.15	29	79	4.31	0.96	28	2.38	1.27	43
making connections between subjects or disciplines (e.g., literature and history)	76	4.09	1.17	30	84	4.32	0.91	27	2.54	1.16	41
drawing appropriate analogies	70	3.88	1.19	34	80	4.12	0.98	34	2.60	1.09	39
applying information gained from texts to new situations or problems	76	4.06	1.12	31	82	4.29	0.92	30	2.24	1.15	50
developing alternative hypotheses or solutions to those proposed in texts	50	3.57	1.25	45	61	3.82	1.17	49	2.64	1.27	38
Judging a text by...											
rating it against generally recognized standards of quality or excellence	31	3.20	1.27	61	49	3.54	1.26	60	3.00	1.24	27
using different critical lenses or stances (e.g., aesthetic, moral, political, philosophical)	21	2.94	1.25	64	41	3.47	1.25	62	3.08	1.28	25
determining its importance or value to oneself	49	3.39	1.28	54	63	3.83	1.17	48	2.78	1.22	33
assessing the risks and benefits of policies or actions it proposes or describes	27	3.09	1.35	62	43	3.50	1.29	61	2.75	1.24	34
Reading skills median rating	3.96					4.19			2.80		