

**Reading Frameworks for 2009:
Comparing the National Assessment of Educational Progress with the
Programme for International Student Assessment**

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Running Head: NAEP/PISA Reading 2009

There is a need to monitor educational progress across political jurisdictions to be able to set or revise educational policy. In the United States, this function is delegated to the National Assessment of Educational Progress (NAEP), a series of assessments in 11 subject areas, including reading. Participation by all states is mandated by the *No Child Left Behind Act of 2001* (NCLB). Internationally, the Programme for International Student Assessment (PISA) fills a similar role, although participation is voluntary, with 62 countries signed up to participate in the 2009 assessment. The scope of PISA includes mathematical and scientific literacy, reading literacy, and problem solving. Because the United States participates in both assessments, it is important to know what the two assessments do and don't assess as well as how they relate to each other.

This paper will explore the two frameworks for reading (NAEP) and reading literacy (PISA), examining the similarities and differences between the two assessments. Such an examination will reveal the implications for policy and practice of the two. There has been recent movement (National Governors Association, Council of Chief State School Officers, & Achieve, Inc., 2008) to “measure state-level education performance globally by examining student achievement and attainment in an international context to ensure that, over time, students are receiving the education they need to compete in the 21st century economy” (p 6.).

To use some international benchmark for educational progress in the United States, this comparison would be both appropriate and timely if the appropriate cautions were in place with regard to policy decisions that could be determined with such results.

The following treatment looks at the purposes, content, and philosophy underlying each assessment. Before looking in detail at these aspects of the assessment, it is worth looking at the most salient changes in each of the frameworks. The previous NAEP framework was developed

in 1992 and revised in 1997. The earlier PISA framework was developed in 2000 and revised in 2006. The PISA framework for 2009 is still in draft form.

SALIENT FEATURES IN THE NAEP 2009 FRAMEWORK

A new framework for the NAEP reading assessment is developed on an approximate schedule every 10 years. The current framework, to be used for the 2009 NAEP reading assessment, incorporates the following key features:

- The framework is consistent with NCLB. It will enable NAEP to carry out its important role in that law as a uniform, independent measure of reading achievement in each state at grades 4 and 8.
- The framework's content and preliminary achievement standards at grade 12 embody reading and analytical skills the project committees believe are needed for rigorous college-level courses and other productive postsecondary endeavors.
- In preparing the framework, extensive use was made of international reading assessments and exemplary state standards. Current research and research syntheses were also used to inform the framework.
- Vocabulary is measured explicitly. Word meanings will be assessed in context and sufficient numbers of vocabulary items will be included to report useful information on the extent of vocabulary knowledge.
- Poetry will be assessed in grade 4 as well as in grades 8 and 12. Previously, NAEP assessed poetry in grades 8 and 12 only. Poetry is a form of text that is rich in meaning and involves a high level of abstraction in language and ideas.
- Multiple-choice and constructed-response items (both short and extended) are included at all grades. In grades 8 and 12, students will be expected to spend about 60

percent of assessment time on constructed-response questions; at grade 4, about 50 percent.

- Separate subscales will be reported for literary and informational text, as has been done on international reading assessments.

SALIENT FEATURES IN THE PISA 2009 FRAMEWORK

The definition of reading literacy used from PISA 2000 to PISA 2006 has been changed, with the addition of engagement in reading as a constituent of reading.

Cognitive and metacognitive competencies, which are conceived of as part of the construct of reading literacy, are assessed. Reading engagement is described as a composite of motivational and behavioral characteristics within the definition of reading literacy. Text is categorized in terms of four salient classifications: medium, environment, format, and type. A new variable in this version of the framework is environment (authored and message-based). This text variable applies only to electronic-medium texts. The taxonomy includes the following formats: description, narration, exposition, argumentation, and instruction.

Print- and electronic-medium aspects have been combined under three (somewhat) new names, replacing the previous print-only and electronic-only names. The aspects are now access and retrieve (formerly retrieving information); integrate and interpret (formerly interpreting texts); and reflect and evaluate (formerly reflection and evaluation).

TARGET POPULATIONS

PISA is an internationally standardized assessment that was jointly developed by participating countries and administered to 15-year-olds in schools. The survey was implemented in 43 countries in the first assessment in 2000, in 41 countries in the second assessment in 2003, and in 57 countries in the third assessment in 2006; 62 countries have signed up to participate in

the fourth assessment in 2009. Tests are typically administered to between 4,500 and 10,000 students in each country.

On the other hand, NAEP assesses students from all 50 states, as part of NCLB requirements. (Prior to NCLB, participation in NAEP was voluntary.) There are two NAEP efforts in reading, a state sample and a national sample. For the state sample, students are sampled from grades 4 and 8, for a target total of 275,000 students. The national sample includes 12th-grade students.

The differences between the two assessments mean that student assessed by PISA fall somewhere between the NAEP 8th-grade and 12th-grade results. There have been recurrent difficulties in interpreting the 12th-grade NAEP results. The use of 12th-grade data may not be straightforward and a national commission concluded it should be redesigned and included in states' sample administrations.

DEFINITIONS AND CONSTRUCTS OF READING

NAEP uses a definition of reading that focuses on comprehension to the exclusion of word-level or decoding variables. The definition developed for the new NAEP framework states that *reading* is an active, complex process involving:

- Understanding written text.
- Developing and interpreting meaning.
- Using meaning as appropriate to type of text, purpose, and situation.

This definition specifically acknowledges that comprehension, as measured on assessments, may be very different from comprehension in nonassessment materials. At the simplest level, some of the considerations would be whether or not students were motivated to

read the texts and answer the accompanying questions, could select or formulate their own purposes, or whether they would have chosen a particular text to read.

PISA uses a somewhat different construct, reading literacy, in order to call attention to the uses of literacy for learning. Another reason for this terminology is that it is intended to convey that what is being assessed goes beyond decoding. The PISA definition for 2009 adds engagement in reading as a constituent of *reading literacy*:

- Reading literacy is understanding, using, reflecting on, and engaging with written texts, in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society.

The definition of reading literacy includes a wide range of cognitive competencies, from basic decoding to knowledge about the world. It also includes metacognitive competencies: the awareness of and ability to use a variety of appropriate strategies when processing texts. Metacognitive competencies are activated when readers think about, monitor, and adjust their reading activity for a particular goal.

TYPES OF TEXTS

Each of the assessments considers a range of texts. NAEP specifies two categories of texts, informational and literary texts. Each category is further subdivided into specific subtypes. For the NAEP reading assessment, informational texts will be classified into three broad categories:

- Exposition.
- Argumentation and persuasive text.
- Procedural text and documents.

The 2009 NAEP reading assessment will also include reading passages of literary text:

- Fiction.
- Literary nonfiction, such as essays, speeches, and autobiographies or biographies.
- Poetry.

Within each of these categories there are many examples. Exhibit 3 in the Appendix lists the genres within each of these subtypes. Notable in this taxonomy is the inclusion of literary nonfiction as a subtype under literary text. This is an attempt to acknowledge that differences in authors' craft—style, perhaps—may make reading things like speeches different from reading most informational text.

The PISA framework has a somewhat different taxonomy of text types from that used by the NAEP framework. The framework explicitly defines “written texts” to include all coherent texts in which language is used in its graphic form: hand-written, printed, and electronic. This definition excludes aural language artifacts such as voice recordings, film, TV, animated visuals, and pictures without words. The definition includes visual displays such as diagrams, pictures, maps, tables, graphs, and comic strips which include some written language (for example, captions). These visual texts can exist either independently or they can be embedded in larger texts. “Hand-written texts” are mentioned for completeness: although they are clearly part of the universe of written texts, they are not very different from printed texts in structure or in terms of the processes and reading strategies they require. Electronic texts, on the other hand, are distinguished from printed texts in a number of respects, including physical readability; the amount of text visible to the reader at any one time; the way different parts of a text and different texts are connected with one another through hypertext links; and consequent upon all these text characteristics, the way that readers typically engage with electronic texts: to a much greater

extent than with printed or hand-written texts they need to construct their own pathways to complete any reading activity.

There are four dimensions along which text is categorized in the PISA framework:

1. Medium: print and electronic.
2. Environment: authored and message-based.
3. Text format: continuous, noncontinuous, mixed, and multiple.
4. Text type: description, narration, exposition, argumentation, and instruction.

Critical in this taxonomy is the inclusion of electronic texts, an area where the NAEP framework is radically divergent. The PISA framework fully acknowledges the differences in form and substance of electronic texts.

In many regards, the taxonomies of text are similar across both the NAEP and PISA frameworks. The most obvious difference is the inclusion of electronic texts in the PISA framework and the exclusion of such texts in the NAEP framework. Another difference is in the subdivisions of informational and literary texts which vary between the two dimensions. PISA also makes more explicit the differences among texts in terms of the environments in which they appear as well as the formats of texts. This last distinction, however, is more a function of the inclusion of electronic texts rather than a difference across more traditional text forms.

COGNITIVE OPERATIONS IN READING

In both NAEP and PISA, there is a convergent agreement on the general categories of cognitive operations. The NAEP framework refers to these as cognitive targets; the PISA framework refers to them as “aspects.” The following table shows the three categories in each framework:

NAEP 2009	PISA 2009
Locating/recalling	Accessing and retrieving
Integrating/interpreting	Integrating and interpreting
Critiquing/evaluating	Reflecting and evaluating

Both frameworks were based on current research and therefore it is not surprising to see the same categories of cognitive operations at the base of both frameworks. It should be noted that the PISA framework specifically acknowledges the compound nature of integrating and interpreting and of reflecting and evaluating. In actuality, the framework identifies these as four different operations. They are combined for technical concerns about the number of items needed to assess each independently.

VOCABULARY ASSESSMENT ON THE 2009 NAEP READING ASSESSMENT

The NAEP framework specifies the importance of students' vocabulary as part of the reading assessment and supports an approach that assesses vocabulary in the context of the reading passages. The goal of vocabulary assessment will be to measure students' *meaning vocabulary*, which can be defined as follows:

Meaning vocabulary is the application of one's understanding of word meanings to passage comprehension.

The proposed method of assessing meaning vocabulary on the 2009 NAEP reading assessment assumes that the ability to gain a sense of the meaning of all or most words in a passage, especially those words that convey important information linked to central ideas of the passage, is a necessary condition for comprehension. NAEP meaning vocabulary items will target words already present in the NAEP reading comprehension passages. Candidate words

must convey important meaning linked to the central idea(s) of the passage; comprehension would likely be disrupted if the meaning of the test word is not known.

There is no explicit discussion of vocabulary in the PISA framework.

EXAMPLE QUESTIONS

Items from the 2009 assessments have not been released, because of security concerns. Given that the release of items might affect the validity of the assessment, this security is reasonable. It is expected that the general format of questions will not be substantially different from the earlier frameworks. Both assessments have a combination of multiple choice items and constructed-response items. For NAEP there are short and extended constructed-response items. PISA uses open and closed constructed responses. Closed constructed responses are those that do not require expert judgment to score, while open items are scored with the use of a rubric. Some example questions, answers, and scoring procedures from the prior NAEP and PISA frameworks are included in the appendices. These are provided only as examples and may not represent the new frameworks appropriately given that the new frameworks specify different taxonomies of texts and abilities. The major differences will appear in the types of texts that are presented in the items rather than in the formats of the questions. There are no electronic examples, as these will appear on the 2009 PISA for the first time.

NONCOGNITIVE AND METACOGNITIVE ASPECTS OF READING

The PISA framework assumes that the development of reading literacy is not confined to the development of skills and knowledge. It also involves noncognitive elements such as reading engagement. Most current models of reading achievement or reading acquisition consider motivation, attitude, and behaviors to be key factors relating to reading achievement. The PISA 2009 definition of individual reading engagement is as follows:

Individual reading engagement refers to the motivational attributes and behavioural characteristics of students' reading.

These motivational attributes include interest, perceived autonomy, self-efficacy, social interaction, and mastery goals. The behavioral characteristics include amount and breadth of reading activities. In the 2009 PISA four of the characteristics (each broadly construed) of reading engagement will be operationalized:

Interest in reading—disposition to read literature and information texts for enjoyment and the satisfaction of curiosity;

Perceived autonomy—perceived control and self-direction of one's reading activities, choices, and behaviors;

Social interaction—social goals for reading and interactive competence;

Reading practices—behavioral engagement referring to the amount and types of reading activities. Specifically, reading practices are defined as *the self-reported frequencies of participating in reading activities with diverse content in various media*.

It is important to note that reading engagement is assessed by self-report items that tap students' knowledge of practices that represent engaged reading.

There is only a very brief assessment of any comparable element to reading engagement in the NAEP framework. As part of most NAEP assessments, four types of questionnaires are used to collect background information:

- student questionnaires collect information on students' demographic characteristics, classroom experiences, and educational support (*completed by students*);

- teacher questionnaires gather data on teacher background, training, and instructional practices (*completed by teachers at grades 4 and 8. NAEP typically does not collect teacher information for grade 12*);
- school questionnaires gather information on school policies and characteristics (*completed by the principal or assistant principal*); and
- SD/ELL (students with disabilities or English language learners) questionnaires collect information about students selected in the sample who have disabilities or limited English proficiency (*completed by special education teacher, bilingual education/English as a second language (ESL) teacher, or staff member who is most familiar with the student*).

The trend in NAEP has been to reduce the number of background items in recent years.

The student questionnaire is very short and attempts to obtain information about student reading habits (type and amount) and includes some questions about how teachers provide instruction.

PISA METACOGNITION

For the PISA framework, the focus of the metacognition construct and the items proposed for inclusion in PISA 2009 is specifically on reading to learn—that is, on reading in the educational situation. This differs dramatically from the types of questions on NAEP.

The approach to measuring metacognition in PISA 2009 will focus on students' strategic knowledge about reading. A person who intelligently uses a particular strategy ought to have some metacognitive knowledge of that strategy, and a person who does not use the strategy is expected to be less knowledgeable. In other words, there is a correlation between appropriate pieces of metacognitive knowledge and the effective use of strategies. Metacognitive knowledge is a prerequisite for reflective and strategic learning.

There is no comparable attempt to assess *metacognition* in the NAEP framework, even though there are questions about habits and instruction. These questions are limited to variables like amount, type, and frequency of reading.

REPORTING

There are some differences between reporting on NAEP and PISA. These differences in reporting are likely not critical, but it is worth noting that while both do use scaled scores, they also use categories indicating relative levels of proficiency.

PISA Reporting

Level	Score points on the PISA scale
5	More than 625
4	553 to 625
3	481 to 552
2	408 to 480
1	335 to 407
Below level 1	Less than 335

NAEP Reporting

NAEP reading assessment results are reported in terms of average scores for groups of students on the NAEP 0–500 scale and as percentages of students who attain each of the three achievement levels (basic, proficient, and advanced). Information is also provided about students who score below basic. These students are not necessarily nonreaders; many can complete some tasks on the assessment but are not able to attain the minimum score required for basic.

Data are reported on subgroups of students by gender, race/ethnicity, eligibility for free or reduced-price lunch, region of the country, type of community, public or nonpublic school, and other variables of interest. Data are never provided for individual students or schools. Subscores will be provided for literary and informational texts. Results will also be provided about students' responses to the vocabulary items.

POLICY IMPLICATIONS

The differences and similarities between NAEP and PISA suggest some differences in the implications for policy. While both NAEP and PISA are concerned with achievement in school, PISA has a larger set of goals—as noted earlier. These larger goals relate to learning outside of school and, implicitly, the ability to become independent learners and readers. Such a concern is not explicitly part of the NAEP framework. Nor is it an explicit target of governmental policy with regard to educational progress. However, the implication is that if educational policy is appropriate, students will become productive citizens capable of being independent, literate individuals. The difference in policy implications is that NAEP focuses almost exclusively on the skills that can be taught in school.

In this regard the most obvious issue for policy is that NAEP involves a coordinated set of assessments for 9-, 13-, and 17-year-old students. PISA is given only to 15-year-old students. NAEP implicitly takes account of differences that exist across the school structure in the United States by assessing students who are in elementary, middle, and high schools. PISA would only present a snapshot of performance in high school. Thus, NAEP scores would be useful for policy decisions about specific levels of the educational system. This, for example, has been demonstrated in recent analyses of NAEP scores showing improvement at elementary levels, but not at high school. (Educational policy over that time emphasized instruction at the elementary

levels rather than at high school. The policy response has been to target middle and high school students with specific educational programs.) While the same students do not participate in all three levels of NAEP, the cross-sectional nature of the scores does provide a set of data that approximates the developmental nature of reading acquisition from 4th to 12th grade.

The constructs that are assessed differ across the two assessment programs. PISA places much greater emphasis on ability to learn outside of school while NAEP has more of a school focus, even though the materials used in the assessment span a greater range than those found in school.

The use of vocabulary as a stand-alone construct reflects the research findings on the centrality of vocabulary in comprehension. (In fact, vocabulary has been implicated even for preschool students as a significant variable in readiness for school.) Given that vocabulary is implicated as a major variable in school achievement, vocabulary scores can be used to monitor curricular emphases. PISA will not be able to isolate the effects of vocabulary with the same precision. However, because there is a close relationship between vocabulary and comprehension, even PISA might provide indirect evidence on this issue.

Another important difference is the inclusion of electronic and multimedia text. PISA incorporates these types of text as a major change from earlier frameworks. NAEP has not made that connection. The reading establishment in the United States has been slow to embrace these forms of text as “real” reading. There is far less research on these issues than on almost any other issue. Students probably encounter more electronic and multimedia text outside of schools. This is probably a temporary situation as more schools incorporate these newer forms of text in school materials and curricula. PISA would have some advantage for policy formulations in this area. NAEP may be moving in this direction, but electronic text and multimedia elements are not well-

represented in the current framework. NAEP would provide little or no guidance for policy concerning these matters.

The policy implications of the assessment of metacognition are far less clear. Research has been unable to establish little more than the co-occurrence of metacognition with more highly skilled reading. Using the information about metacognition may not be easily translated into either policy or practice.

While the reading frameworks for both NAEP and PISA target some of the same skills as well as different ones that have implications for policy and practice, NAEP clearly allows for no comparison beyond the United States. Participation in NAEP is mandatory for all states as a condition of the NCLB Act (and is aligned with it) and consequently is highly appropriate for comparisons between states. PISA, by comparison, is voluntary and may not align with the educational system in the United States as well as NAEP does.

Perhaps more important is the age of the students involved. NAEP only reports 12th-grade scores as some indication of preparedness for postsecondary school endeavors. More detailed analyses are completed for 4th and 8th grades, but the direct comparison of PISA and NAEP scores would be problematic, given that PISA only assesses students who would be the equivalent of 10th-grade students in the United States.

Considering the differences between the two frameworks and their respective assessments, it is difficult to interpret the two assessments in the same way. While NAEP gives a set of three assessments by which to compare performance across states, PISA gives a single assessment to compare performance across countries. In an increasingly globalized world, such comparisons between countries that PISA provides may be valuable. (In fact, a recent recommendation of the National Governors Association is to benchmark state performance

against PISA to determine the effectiveness of schools to prepare students to participate in a global economy.) A difficulty is that it would not always be clear what to do about the results should a state (or any other country) want to improve its standing with regard to PISA scores.

Nonetheless, the two assessments will provide different information about reading and reading literacy. Used together, the two assessments have the potential for giving a more complete picture of reading abilities of students than either alone. That said, neither of the assessments provides information that can be used at the individual student level (or even at the school level). Great caution must be exercised in making policy decisions on the basis of either NAEP or PISA. Used together they might allow more informed policy decisions, but these assessments are very blunt to make fine policy corrections in a system as complex as education. The assessments target different elements of educational structures. PISA focuses on the middle of high school with an intent to determine how prepared students will be to participate in future societal endeavors by assessing performance in reading, mathematics, and science. NAEP is more directly focused on achievement in school subjects—11 subjects in all, including separate assessments for reading and writing.

At the very least the two assessments should be supplemented with more precise information that might be able to attribute any positive or negative findings to more precise causes. Neither of the assessments currently provides that information—information that would be crucial to the process of formulating policy.

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Appendix Materials

EXHIBIT 3

The following materials are taken directly from the NAEP Framework Document. The Exhibit number is preserved so as not to cause confusion.

Exhibit 3. Literary text matrix: Fiction

Genre/Type of Text		Text Structures and Features	Author's Craft	
Fiction	Grade 4	<ul style="list-style-type: none"> Adventure stories Historical fiction Contemporary realistic fiction Folktales Legends Fables Tall tales Myths Fantasy 	<ul style="list-style-type: none"> Themes Morals Lessons Organization Plot: sequence of events Conflict Solution Resolution Elements Setting Characterization 	<ul style="list-style-type: none"> Diction and word choice Dialogue Exaggeration Figurative language Symbolism Simile and metaphor
	Grade 8	<ul style="list-style-type: none"> Science fiction Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> Organization Parallel plots Circular plots Elements Point of view Contradictions Internal vs. external conflict Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> Mood Imagery Flashback Foreshadowing Personification Plus increasingly complex application of grade 4
	Grade 12	<ul style="list-style-type: none"> Satire Parody Allegory Monologue Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Organization Differentiation of plot structures for different purposes and audiences Elements Interior monologue Unreliable narrators Multiple points of view Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Dramatic irony Character foils Comic relief Unconventional use of language Plus increasingly complex application of grades 4 and 8

Exhibit 3 (continued). Literary text matrix: Literary nonfiction

Genre/Type of Text		Text Structures and Features	Author's Craft	
Fiction	Grade 4	<ul style="list-style-type: none"> Personal essay Autobiographical and biographical sketches 	<ul style="list-style-type: none"> Organization Description Cause and effect Comparison Chronology Elements Point of view Themes or central ideas Supporting ideas Logical connections Transitions 	<ul style="list-style-type: none"> Diction and word choice Use of exposition, action, or dialogue to introduce characters Exaggeration Figurative language Symbolism Simile and metaphor
	Grade 8	<ul style="list-style-type: none"> Character sketch Memoir Speech Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> Increasingly complex application of grade 4 	<ul style="list-style-type: none"> Voice Tone Imagery Metaphoric language Irony Plus increasingly complex application of grade 4
	Grade 12	<ul style="list-style-type: none"> Classical essay Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Denotation Connotation Plus increasingly complex application of grades 4 and 8

Exhibit 3 (continued). Literary text matrix: Poetry

		Genre/Type of Text	Text Structures and Features	Author’s Craft
Poetry	Grade 4	<ul style="list-style-type: none"> • Narrative poem • Lyrical poem • Humorous poem • Free verse 	<ul style="list-style-type: none"> Organization • Verse • Stanza • Text features • Repetition • Omission • Dialogue • Line organization • Patterns • Elements • Rhyme scheme • Rhythm • Mood • Themes and intent 	<ul style="list-style-type: none"> • Diction and word choice (including the decision to omit words that may leave the reader with much to infer) • Choice of different forms of poetry to accomplish different purposes • Exaggeration • Use of imagery to provide detail • Figurative language • Simile • Metaphor • Imagery • Alliteration • Onomatopoeia
	Grade 8	<ul style="list-style-type: none"> • Ode • Song (including ballad) • Epic Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> Elements • Abstract theme • Rhythm patterns • Point of view Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> • Figurative language • Symbolism • Personification Plus increasingly complex application of grade 4
	Grade 12	<ul style="list-style-type: none"> • Sonnet • Elegy Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Elements • Complex themes • Multiple points of • view • Interior monologue • Soliloquy • Iambic pentameter Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> • Denotation • Connotation • Irony • Tone • Complex symbolism • Extended metaphor and analogy Plus increasingly complex application of grades 4 and 8

Exhibit 3 (continued). Informational text matrix: Exposition

Genre/Type of Text		Text Structures and Features	Author’s Craft	
Exposition	Grade 4	<ul style="list-style-type: none"> • Informational trade book • Textbook • News article • Feature article • Encyclopedia entry • Book review 	<ul style="list-style-type: none"> • Organization • Description • Sequence (e.g., enumeration, chronology) • Cause and effect • Problem and solution • Comparison and contrast • Content features • Point of view • Topics or central ideas • Supporting ideas and evidence • Graphic features • Titles • Subheadings • Italics • Captions • Sidebars • Photos and illustrations • Charts and tables 	<ul style="list-style-type: none"> • Transitional words • Signal words • Voice • Figurative language and rhetorical structures • Parallel structure • Quotations • Examples • Repetition • Logical arguments
	Grade 8	<ul style="list-style-type: none"> • Historical document • Essay (e.g., informational, persuasive, analytical) • Research report Plus increasingly complex application of grade 4 	Increasingly complex application of grade 4	<ul style="list-style-type: none"> • Irony • Sarcasm Plus increasingly complex application of grade 4
	Grade 12	<ul style="list-style-type: none"> • Essay (e.g., political, social, historical, scientific, natural history) • Literary analysis Plus increasingly complex application of grades 4 and 8 	Increasingly complex application of grades 4 and 8	<ul style="list-style-type: none"> • Denotation • Connotation • Complex symbolism • Extended metaphor and analogy • Paradox • Contradictions/incongruities • Ambiguity Plus increasingly complex application of grades 4 and 8

Exhibit 3 (continued). Informational text matrix: Argumentation and persuasive text

Genre/Type of Text		Text Structures and Features	Author's Craft	
Argumentation and Persuasive Text	Grade 4	<ul style="list-style-type: none"> • Informational trade book • Journal • Speech • Simple persuasive essay 	<ul style="list-style-type: none"> Organization • Description • Sequence (e.g., enumeration, chronology) • Cause and effect • Problem and solution • Comparison and contrast • Content features • Author's perspective or position • Topics or central ideas • Supporting ideas and evidence • Contrasting viewpoints and perspectives • Presentation of the argument (e.g., issue definition, issue choice, stance, relevance) • Graphic features • Titles • Subheadings • Italics • Captions • Sidebars • Photos and illustrations • Charts and tables 	<ul style="list-style-type: none"> • Transitional words • Signal words • Voice • Figurative language and rhetorical structure • Parallel structure • Quotations • Examples • Repetition • Exaggeration • Emotional appeal • Tone
	Grade 8	<ul style="list-style-type: none"> • Letter to the editor • Argumentative essay • More complex persuasive essay • Editorial Plus increasingly complex application of grade 4 	<ul style="list-style-type: none"> Increasingly complex application of grade 4 	<ul style="list-style-type: none"> • Irony • Sarcasm • Figurative language and rhetorical structure • Parallel structure • Quotations Plus increasingly complex application of grade 4
	Grade 12	<ul style="list-style-type: none"> • Essay (e.g., political, social) • Historical account • Position paper (e.g., persuasive brochure, campaign literature, advertisements) Plus increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Increasingly complex application of grades 4 and 8 	<ul style="list-style-type: none"> Increasingly complex application of grades 4 and 8

Exhibit 3 (continued). Informational text matrix: Procedural texts and documents

		Genre/Type of Text	Text Structures and Features
Procedural Texts and Documents	Grade 4	Embedded in text • Directions • Map • Timeline • Graph • Table • Chart	Organization • Description • Procedures • Sequence (e.g., enumeration, chronology) • Graphic features • Titles • Labels • Headings • Subheadings • Sidebars • Photos and illustrations • Charts and graphs • Legends
	Grade 8	Embedded in text • Recipe • Schedule Plus increasingly complex application of grade 4	Increasingly complex application of grade 4
	Grade 12	Stand-alone material • Application • Manual • Product support material • Contract Plus increasingly complex application of grades 4 and 8	Increasingly complex application of grades 4 and 8

Note: There are no entries for “Author’s Craft” in procedural text or documents.

APPENDIX A

Sample Questions—NAEP

[Insert “AppendixA_SampleNAEPQuestions.pdf”]

APPENDIX B

Sample Questions—PISA

[Insert "AppendixB_SamplePISAQuestions.pdf]