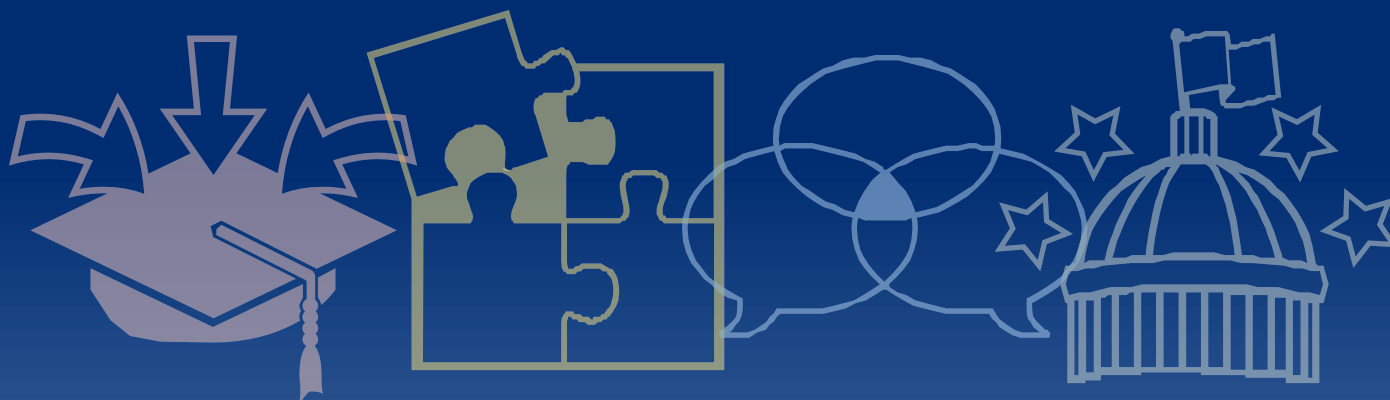




JOHNS HOPKINS  
SCHOOL of EDUCATION

Institute for Education Policy



## ELA Knowledge Map™



*A unique analytic resource enabling  
policymakers, school leaders, and parents to  
better understand the strengths and weaknesses  
of the BJU Press Grades K-12 English language arts  
curriculum.*

Winter 2022



The achievement gap is, in large part, a knowledge gap. Compelling research strongly affirms that students' reading levels – particularly from fifth grade onwards – relate deeply to their level of background content knowledge.<sup>i</sup> Students in more affluent systems demonstrate more success in skill-based English language arts (ELA) assessments not only because they are better at “recognizing main ideas,” but also because they are far more likely to know more about the subject matter discussed in any given text. Research from around the world shows the same: [Most democracies around](#) the world require all schools to teach a standard body of knowledge; and a comprehensive, content-rich curriculum is a signature feature of [high-performing education systems](#). Despite the research record, a large number of the United States' ELA curricula treat texts not as a source of building knowledge, but merely as a site for attempting to hone abstract reading skills.

Determining whether a particular ELA curriculum is “standards aligned” is a helpful step, but it does not tell us about the knowledge-building capacity of that curriculum.<sup>ii</sup> For example: Instructional materials may use publisher-written texts that satisfy the standards-based requirement for “textual complexity,” but if the materials fail to offer students a sequenced, knowledge-rich learning experience they miss a critical opportunity to build reading fluency. Merely drilling students on “finding the main idea” will never help them become better readers. Instead, they need to understand what the text is really about - something that can only be achieved by acquiring the background knowledge.

The Johns Hopkins Institute for Education Policy (Institute) has developed the ELA Knowledge Map™, a tool with which to evaluate an ELA curriculum in terms of the knowledge it offers students, both about the world (mainly through nonfiction texts) and about psychology and the human condition (through both nonfiction and fiction texts). The Institute conducts this analysis by “mapping” the knowledge domains implicit in the selection of the documents to be read, while also evaluating each text's quality and the coherence of the unit in which is taught. To measure coherence, we assess the degree to which supporting materials in a unit amplify and deepen the specific knowledge offered in the anchor text.

Each review generates two visual reports: *Knowledge Heat Maps* and *Unit Coherency Maps*.<sup>1</sup> The maps depict the fields of knowledge opened and those missed, in each grade and cumulatively, and with what quality of texts.

The Knowledge Map™ is a one-of-a-kind analytic resource that enables policymakers, school leaders, and parents to better understand the overall strengths and weaknesses of a given curriculum; instructional leaders to “fill in gaps” that might exist; and publishers to continuously improve the materials they offer the public.

The Johns Hopkins Institute for Education Policy reviewed the texts that comprise BJU Press K-12 curriculum. The Institute evaluated every text individually, in the context of its unit, and its part in the more extensive, cumulative acquisition of specific content knowledge.

## HIGH-LEVEL FINDINGS

The BJU Press curriculum presents specific strengths and weaknesses. Insights discussed in this report derive from several analyses, which include Knowledge “Heat” Maps, text quality, Coherency Charts, and the prevalence of texts on critical topics.

### Strength of Curriculum

The most significant strength of the curriculum is that it exposes students to multiple texts of various content knowledge. Robust knowledge domains in the K-5 curriculum include American Literature, Global Literature, and Social-Emotional. The curriculum continues knowledge building in Grades 6-12 through several similar knowledge domains, including American Literature; Emotions, Being, & Personal Psychology; Literary Genres; and Social Sciences (Politics, Economics, & Sociology). This focus ensures students build and reinforce knowledge within a variety of subject matters.

Another strength is that the curriculum exposes students to higher-quality units at the multiple secondary grade levels. In Grades 7 – 12, text quality averaged above 70%. Exposure to these units ensures that students have access to high-quality and coherent texts.

### Weakness of Curriculum

While certain topics do have strong knowledge builds, the most striking weakness is the absence of coverage in several knowledge domains across K-12. In Grades K – 5, these knowledge domains include Diversity, Equity, & Inclusion; Mathematics & Reason; Music & Performing Arts; and World History. In Grades 6 – 12, the knowledge domains include Diversity, Equity, & Inclusion; Music, Arts, & Architecture; Physical Sciences; and World History to 1600s. Instead, the curriculum focuses on texts rich in literature and social sciences domains.

Another major weakness is the quality of units in lower grades. Grades K-2 consistently score below the high-quality threshold 70.0%. This indicates that many of the texts students encounter in those grade bands are below the acceptable rating.

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<sup>1</sup> Unit coherency maps will only be generated if the curriculum materials enable that form of analysis.

## METHODOLOGY

- The Institute maps all items in the evaluated grades on three initial dimensions and at different grain sizes of coverage. For example, a letter by abolitionist Thomas Garrett about Harriet Tubman would be categorized like so:
  - **Domain:** U.S. History to 1865
  - **Topic:** Slavery/Abolition
  - **Subtopics:** Harriet Tubman; Underground Railroad
- The Institute evaluates the quality of every student-facing resource both individually and in the broader context of the unit.
- The Institute constructs a vertical mapping of the knowledge domains at each level, first by grade and then across multiple grades.
- The Institute creates a coverage report that visually illustrates the depth of emphasis a given domain receives across the grades.

## INSTITUTE RECOMMENDATIONS

The BJU Press K-12 curriculum for ELA provide a research-based curriculum intended to improve knowledge building, text quality, and usability for educators. The Knowledge Map™ analysis highlights the crucial areas of knowledge building and assesses associated strengths and weaknesses as well as text quality. Therefore, the Institute recommends that:

- Ensure proper coverage and quality in key knowledge domains.
- Increase the quality and coherence of diversity and culturally responsive texts, where low.
- Increase the reinforcement of knowledge building within and between grade levels.
- Improve the quality and coherence of unit texts, where low.

We turn in the first section to the specific findings of the Knowledge Map™ exercise, followed by quality and coherence findings in the second section.

## BJU PRESS KNOWLEDGE HEAT MAPS: GRADES K-5

A critical gateway question is, “How much exposure do children receive to each important domain of knowledge and topics within them?” The Heat Maps measured coverage at the topical level based upon Institute expert extrapolation of the Common Core Standards in English language arts generalized to grades K-5 findings that knowledge-building domains include strong, moderate, and weak ratings.

Each Heat Map expresses the findings visually using a color-coding scheme, as shown in Figure 1. Lighter blue squares represent fewer knowledge-building texts, such as one or no text; while darker blue squares represent more knowledge-building texts, such as eight or more. The text analysis results

for ten topical domains for grades K-5 appear in Figures 2-11. The knowledge domains represent the Institute’s interpretation of the Common Core Standards and therefore, do not include error analysis.

A mere mention of a topic does not necessarily indicate exposure to that topic. The Institute tags a topic only when the text’s presentation of it is robust enough for a student



Figure 1. Heat map color-coded rating scheme of knowledge building, where lighter blue indicates fewer texts and darker blue indicates a larger number of texts.

### Strong Knowledge-Building Domains

The curriculum presents robust knowledge building in few topics and domains (shown below alphabetically when similarly rated). Strong knowledge-building domains appear in the Heat Maps as dark blue, indicating many texts address the topic (i.e., the Heat Map categories of 8+ Texts or 5-7 Texts). Prevalence analysis divides the number of strong Heat Map ratings on a topic at grade level (i.e., number of darker blue squares) by the entire knowledge domain (i.e., total squares).

Three knowledge domains present the highest prevalence of strong knowledge-building texts, relative to the entire curriculum. These include American Literature, 61.1% (n=11 of 18, Figure 2); Global Literature, 33.3% (n=6 of 18, Figure 3); and Social-Emotional, 42.6% (n=23 of 54, Figure 4). Note that prevalence analysis numbers depict mathematical averages. The precision of the numbers does not reflect the underlying uncertainties of the values.

Many knowledge domains exhibit patterns of strength in specific topics across grade bands. One pattern exhibits a high prevalence of strong knowledge-building texts across all grade levels. Examples include Fiction in American Literature (Figure 2); Emotions in Social-Emotional (Figure 4); and World Cultures & Traditions in World History (Figure 11). The second noticeable pattern depicts a high prevalence of strong knowledge-building texts across 83.3% grade levels, including: Poetry in Figure 2; Identity Development and Relationship Skills in Figure 4; and Animals in Figure 5. Patterns of strength within knowledge domains indicate that students receive strong reinforcement of specific topics throughout their elementary careers.

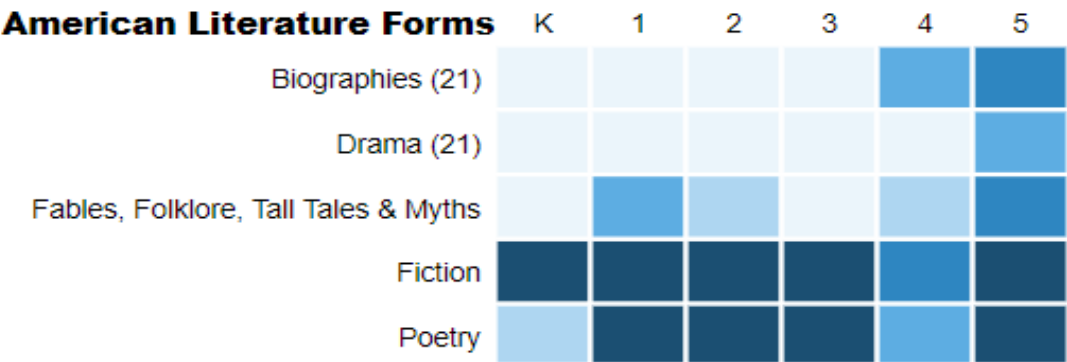


Figure 2. Heat map analysis of the American Literature knowledge domain in Grades K-5.

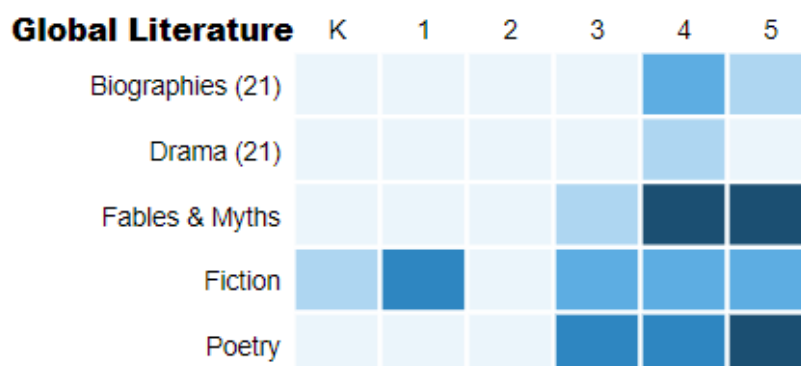


Figure 3. Heat map analysis of the Global Literature knowledge domain in Grades K-5.

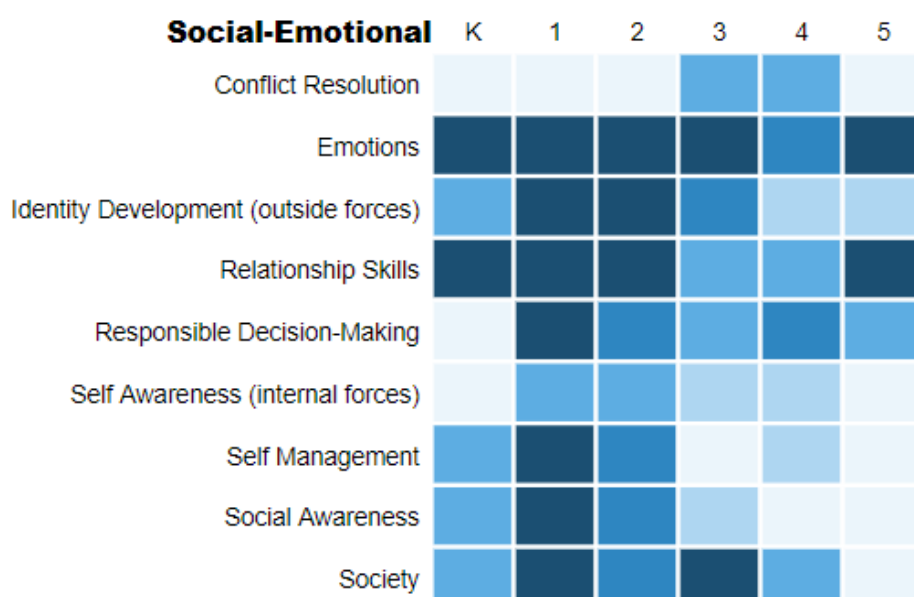


Figure 4. Heat map analysis of the Social Emotional knowledge domain in Grades K-5.

## Moderate Knowledge-Building Domains

The curriculum additionally presents moderate knowledge-building domains and topics. Moderate knowledge-building domains appear in the Heat Maps as mixed blue, indicating few-to-some texts addressing the topic (i.e., the Heat Map category of 2-4 Texts). Prevalence analysis divides the number of moderate Heat Map ratings on a subject at grade level (i.e., number of medium blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, the reviewers note one knowledge domain—Science—for moderate prevalence of knowledge-building texts in all domain topics, relative to the entire curriculum, 14.9% (n=17 of 114, Figure 5). Note that prevalence analysis numbers represent mathematical counts. The precision of the numbers does not reflect the underlying uncertainties of the values.

Specific patterns of moderate knowledge building arise within specific topics across grade bands. For example, the most common pattern presents moderate coverage in topics across 33.3% of grade

levels. Numerous examples exist including: Fables & Myths in American Literature (Figure 2); Poetry in Global Literature (Figure 3); Self Awareness and Social Awareness in Social-Emotional (Figure 4); Insects and Seasons, Weather & Meteorology in Science (Figure 5); and American Ideals, Culture, & Tradition and Westward Expansion in American History (Figure 6). This pattern reveals moderate knowledge building arising in many topics within and across grade levels.

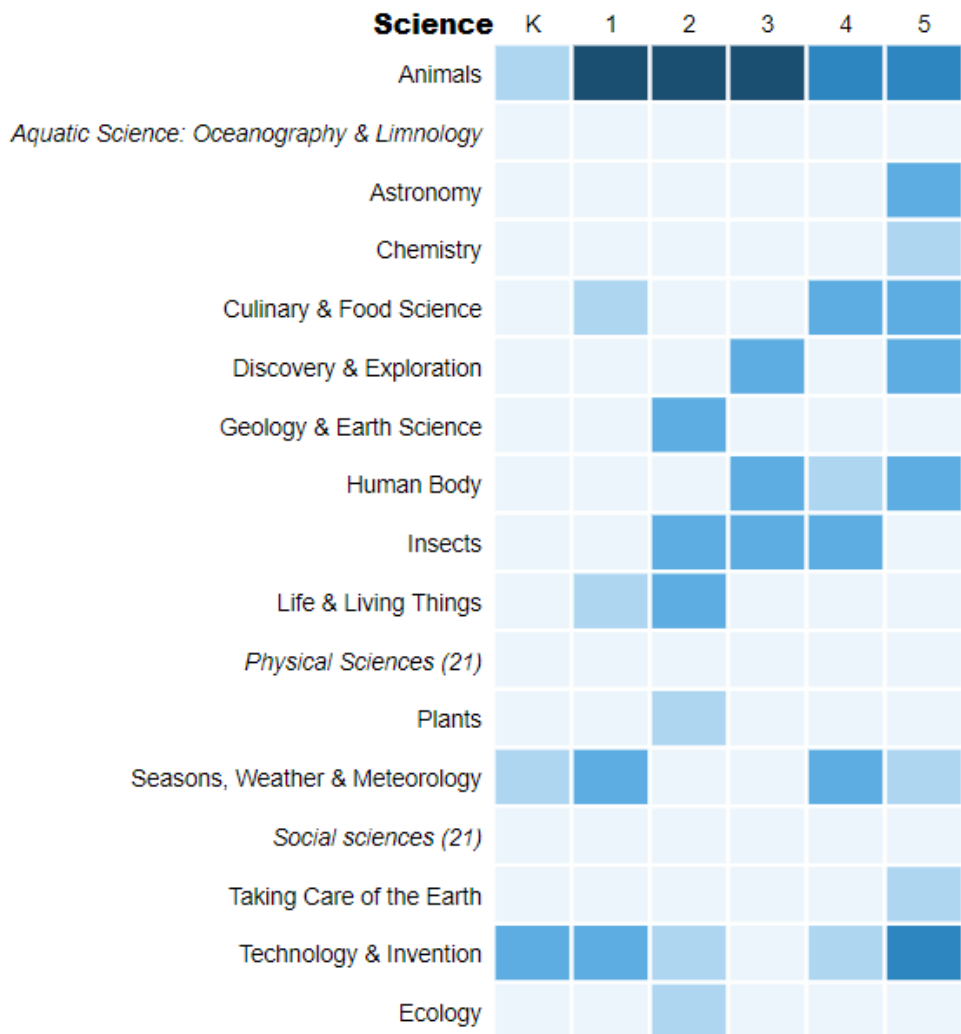


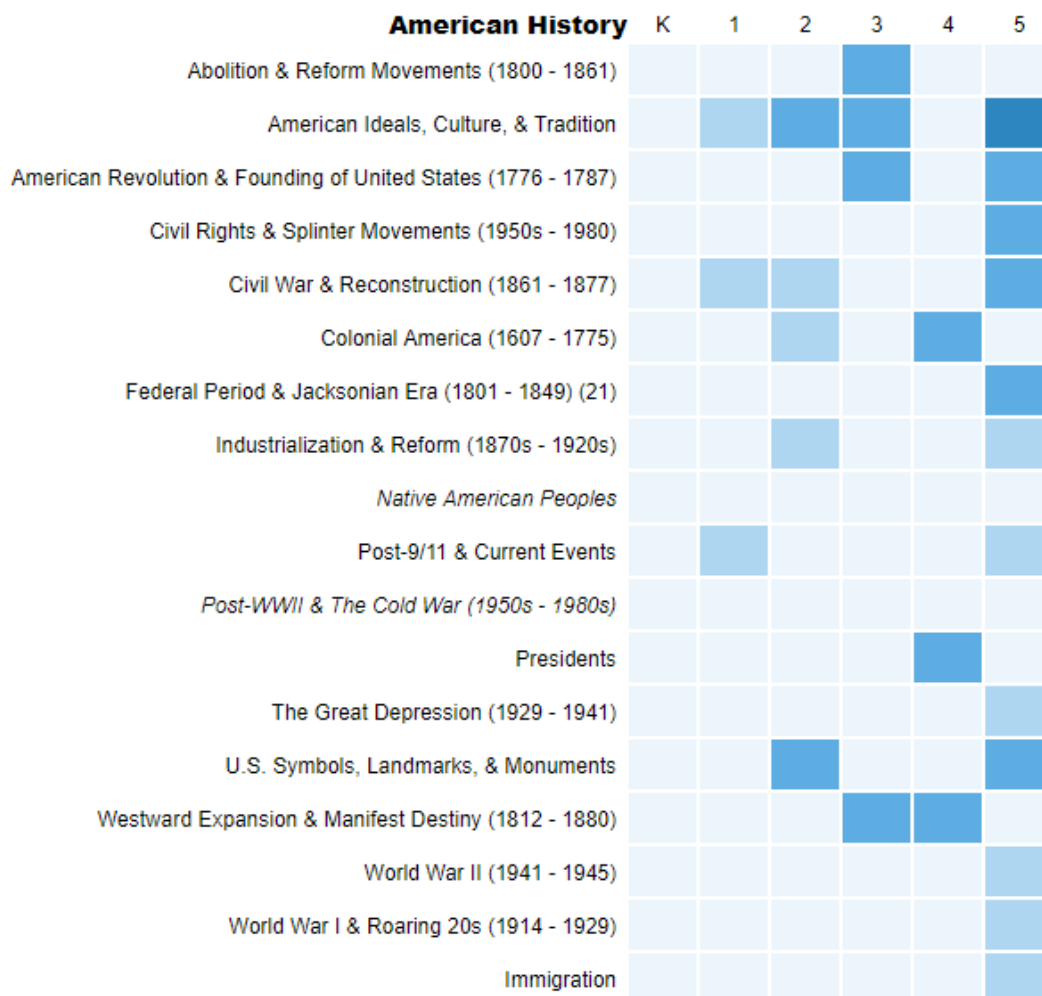
Figure 5. Heat map analysis of the Science Knowledge domain in Grades K-5.

## Weak Knowledge-Building Domains

The curriculum presents insufficient or weak knowledge-building in a few knowledge domains and topics. Weak knowledge-building domains appear in the Heat Maps as light blue or gray, indicating one or no texts address the topic. We do not perform prevalence analysis on weak domains because there is not enough data to be meaningful. However, domains with 60% or more of the topics showing no or one text are included in the Weak category. Specifically, researchers note seven knowledge domains for weak knowledge-building texts in domain topics. These include: American History (Figure 6); Diversity, Equity, & Inclusion (Figure 7); Mathematics (Figure 8); Music & Performing Arts (Figure 9); Visual Arts (Figure 10); and World History (Figure 11).

Apart from these overall weak domains, all other knowledge domains display specific weaknesses. One pattern of specific weakness is the absence of texts across grade levels. For example, the Movements in Arts or Architecture in the Visual Arts domain is not addressed at any grade level.

A final pattern of weakness presents as a lack of domain coverage within a grade band. A visual scan of the Knowledge Map™ reveals this pattern as empty columns beneath individual grade levels. For example, no texts within Kindergarten address topics within the knowledge domain American History (Figure 6). Such absence may reflect curricular progression decisions and other factors, but significant gaps may still be worth examining.



*Figure 6. Heat map analysis of the American History knowledge domain in Grades K-5.*

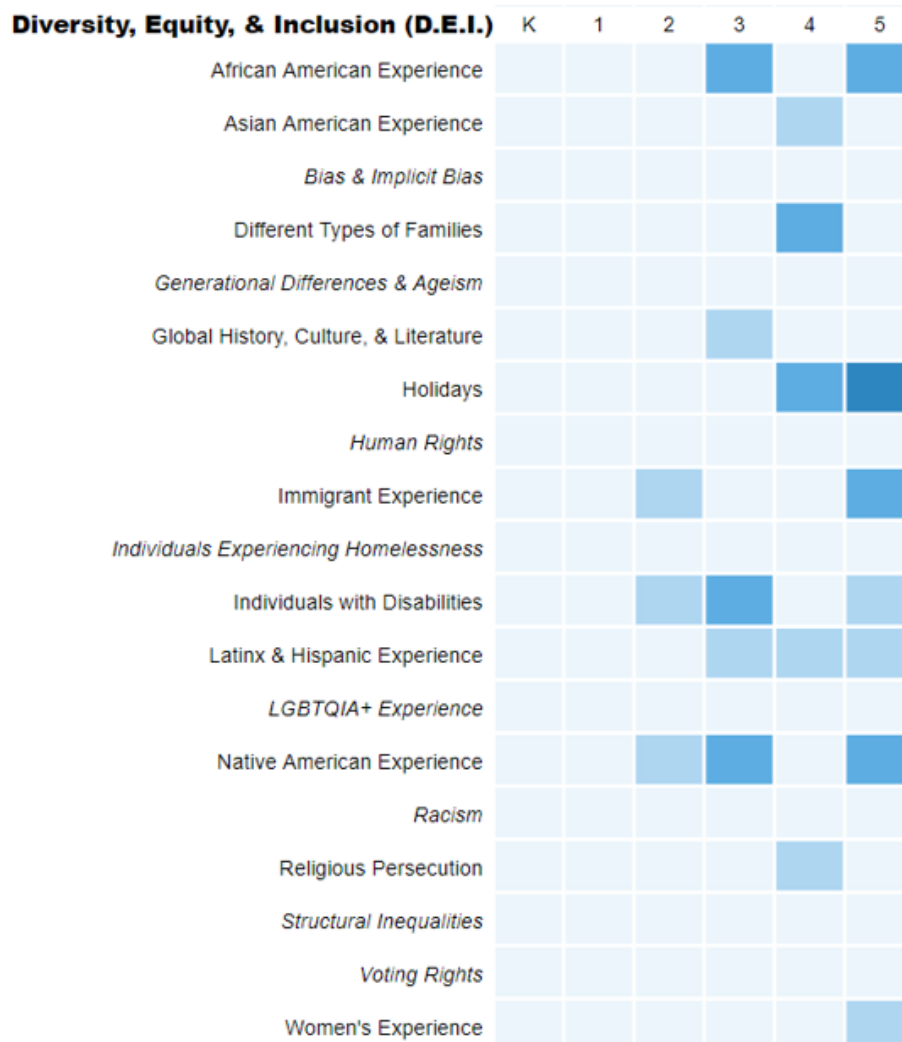


Figure 7. Heat map analysis of the Diversity, Equity, & Inclusion knowledge domain in Grades K-5.

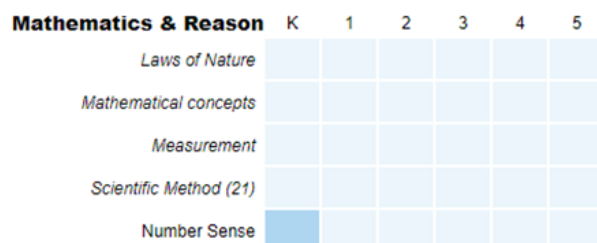


Figure 8. Heat map analysis of the Mathematics & Reason knowledge domain in Grades K-5.

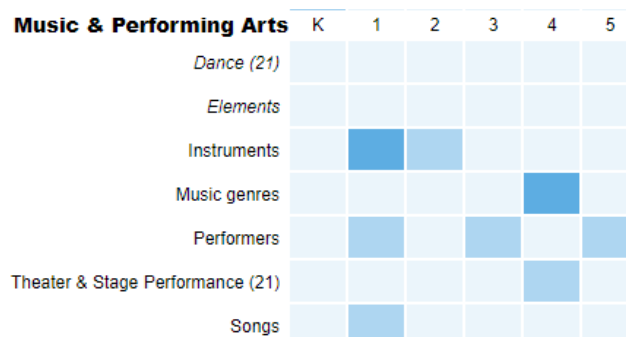


Figure 9. Heat map analysis of the Music & Performing Arts knowledge domain in Grades K-5.

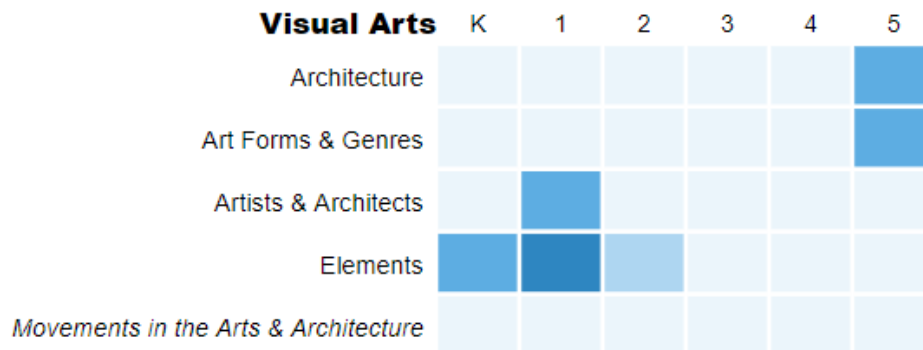


Figure 10. Heat map analysis of the Visual Arts knowledge domain in Grades K-5.

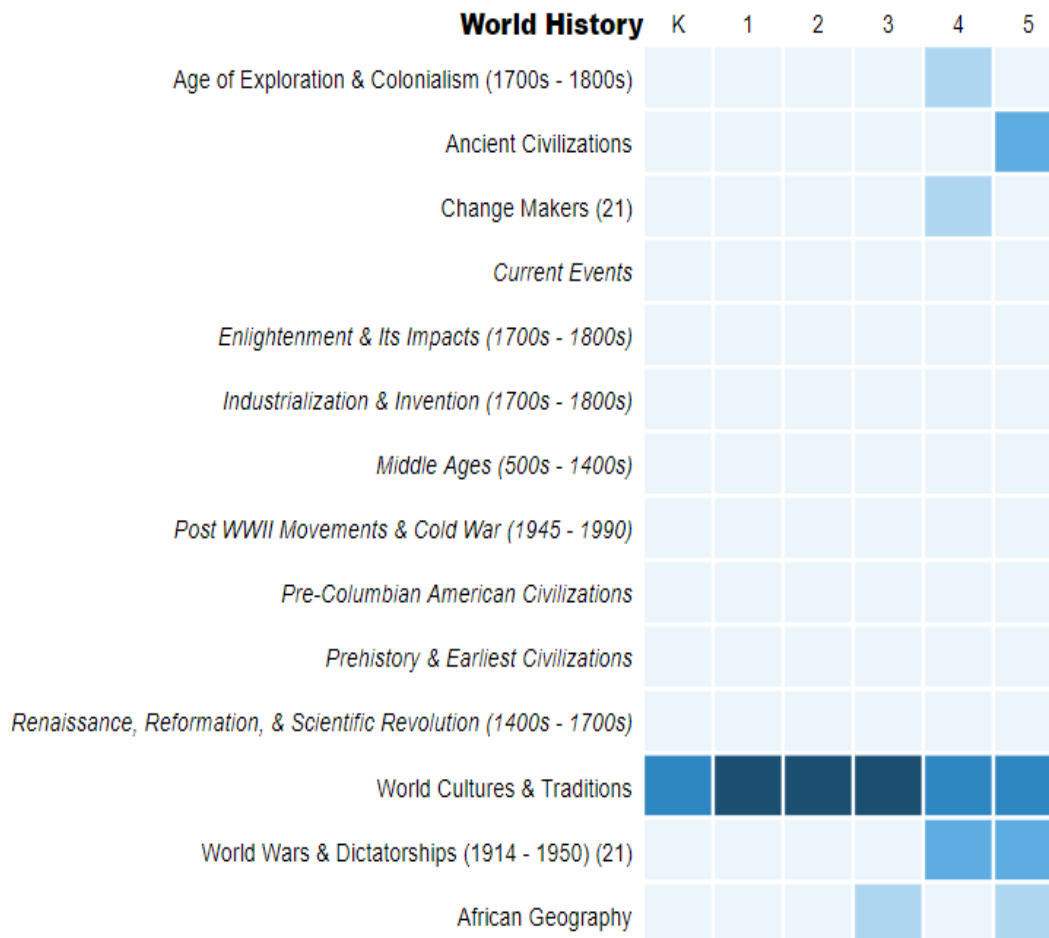


Figure 11. Heat map of the World History knowledge domain in Grades K-5.

## BJU PRESS KNOWLEDGE HEAT MAPS: GRADES 6-12

The Institute continued Heat Map analysis of grades 6-12 using the same criteria and processes as the prior analysis of grades K-5. Our findings of knowledge-building domains include strong, moderate, and weak ratings. Each Heat Map expresses the findings visually using a color-coding scheme, as shown in Figure 2. Lighter blue squares represent lesser numbers of knowledge-building texts, and darker blue squares represent greater numbers of knowledge-building texts. The results of text analysis for each of 19 topical domains for the Grades 6-12 curriculum appear in Figures 12-33, below. The knowledge domains represent the Institute's interpretation of the Common Core Standards, and therefore, do not include error analysis.

See Figure 1 for reference.

### Strong Knowledge-Building Domains

The curriculum presents strong knowledge building in several domains and many topics. Strong knowledge-building domains appear in the Heat Maps as dark blue, indicating many texts address the topic (i.e., the Heat Map categories of 8+ Texts or 5-7 Texts). Prevalence analysis divides the number of strong Heat Map ratings on a topic at grade level (i.e., number of darker blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, The Institute considers six knowledge domains as strong with a high prevalence of knowledge-building texts, relative to the entire curriculum: American Literature, 17.6% (n=16 of 91, Figure 12); Life Sciences, 15.3% (n=14 of 91, Figure 13); Emotions, Being, & Personal Psychology, 82.6% (n=100 of 121, Figure 14); Literary Genres, 22.1% (n=17 of 77, Figure 15); Religion, 15.9% (n=10 of 63, Figure 16); and Social Sciences (Politics, Economics, Sociology), 29.5% (n=62 of 210, Figure 17). Note that prevalence analysis numbers are mathematical averages.

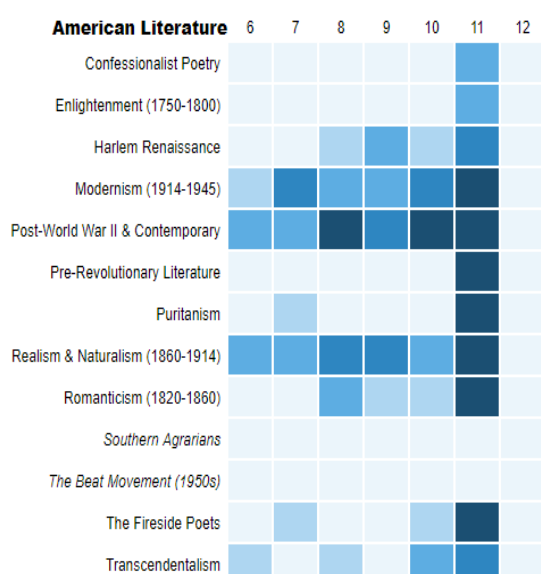


Figure 12. Heat map analysis of the American Literature knowledge domain in Grades 6-12.

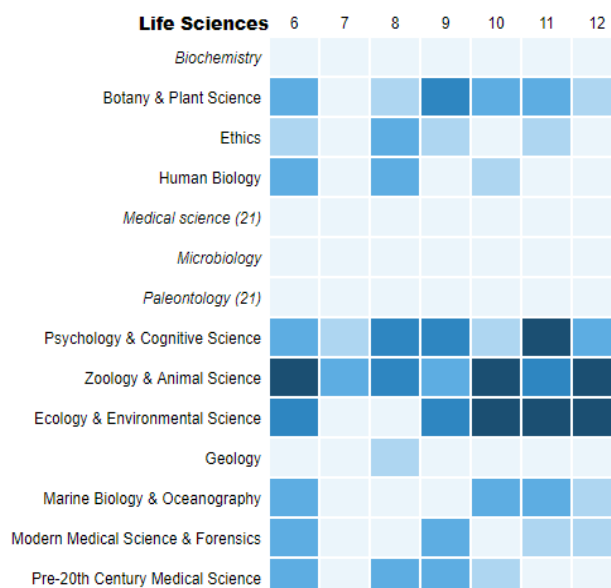


Figure 13. Heat map analysis of the Life Sciences knowledge domain in Grades 6-12.

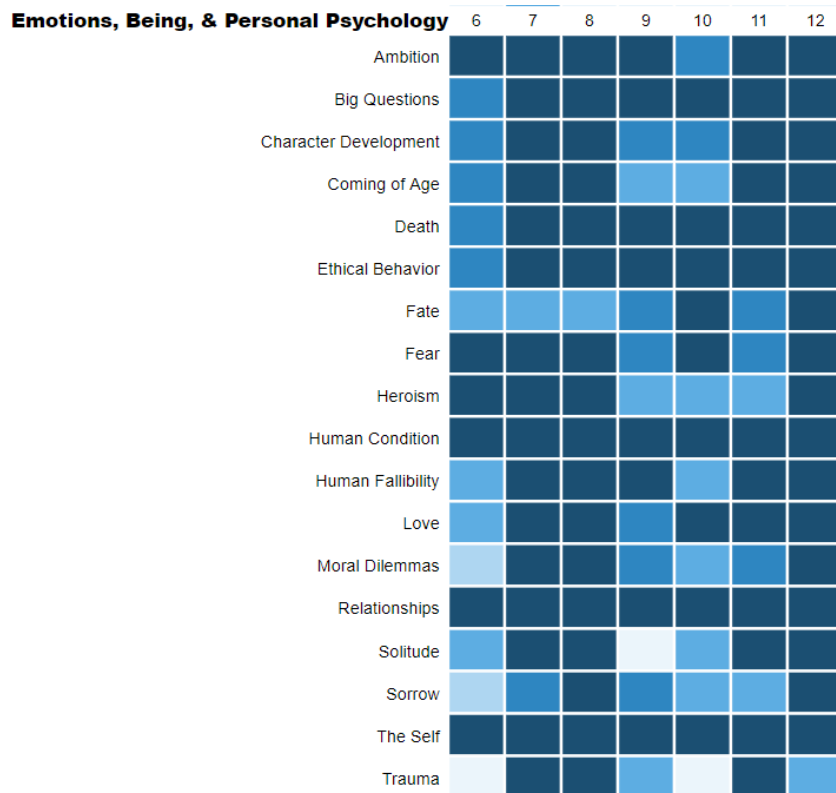


Figure 14. Heat map analysis of the Emotions, Being, & Personal Psychology knowledge domain in Grades 6-12.

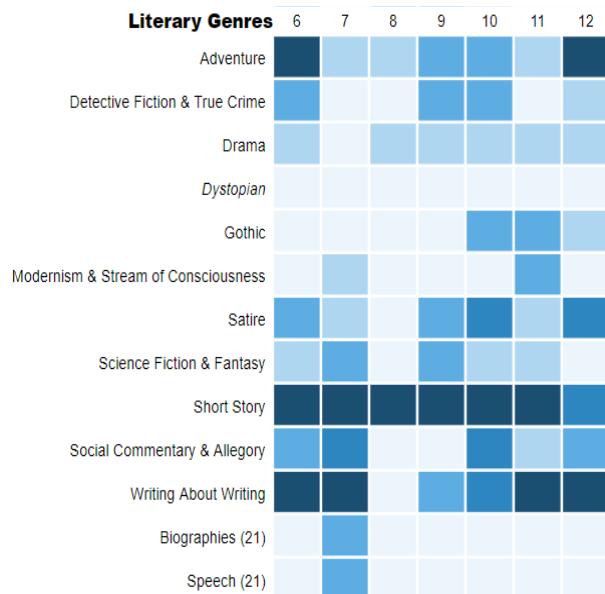


Figure 15. Heat map analysis of the Literary Genres knowledge domain in Grades 6-12.

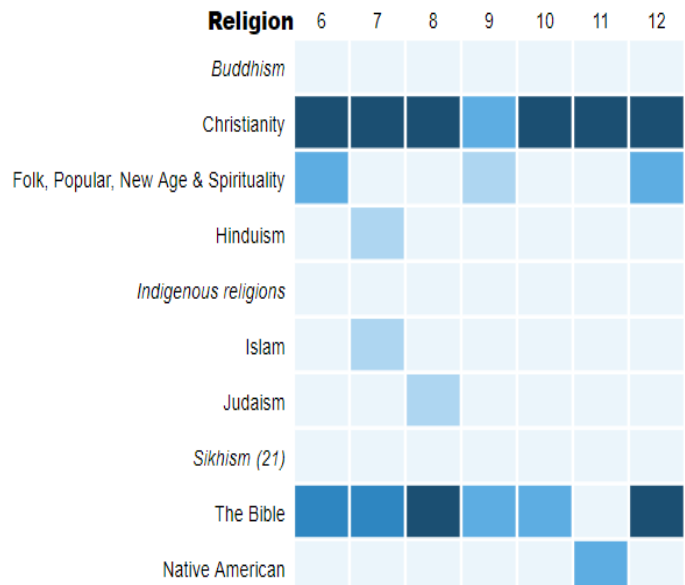


Figure 16. Heat map analysis of the Religion knowledge domain in Grades 6-12.



*Figure 17. Heat map analysis of the Social Sciences (Politics, Economics, Sociology) knowledge domain in Grades 6-12.*

Knowledge domains exhibit few patterns of strength in specific topics across grade bands. One pattern demonstrates high prevalence of strong knowledge-building texts across 100% of grade levels. Examples include *Ambition*, *Big Questions*, *Character Development*, *Death*, *Ethical Behavior*, *Fear*, *Human Condition*, *Relationships*, and *The Self in Emotions, Being, & Personal Psychology* (Figure 14); *Short Story in Literary Genres* (Figure 15); and *Class*, *Family*, *Gender*, and *Individual, State, & Society* in Social Sciences (Politics, Economics, Sociology) (Figure 17).

Another pattern presents itself through strong knowledge-building texts across five or six grade levels. Examples include Human Fallibility, Love, and Moral Dilemmas in Emotions, Being, & Personal Psychology (Figure 14); Christianity in Religion (Figure 16); Community, Labor, and Religion & Society in Social Sciences (Politics Economics, Sociology) (Figure 17). Patterns of strength within knowledge domains indicate that students infrequently receive strong reinforcement of specific topics throughout their secondary careers.

## Moderate Knowledge-Building Domains

Moderate knowledge-building domains appear in the Heat Maps as mixed blue, indicating few-to-some texts addressing the topic (i.e., the Heat Map category of 2-4 Texts). Prevalence analysis divides the number of moderate Heat Map ratings on a topic at grade level (i.e., number of medium blue squares) by the entire knowledge domain (i.e., total squares).

Specifically, analysis shows five knowledge domains notable for moderate prevalence of texts in all domain topics, relative to the entire curriculum. These domains include: British Literature, 18.6% (n=17 of 91, Figure 18); Diverse, Equity, & Inclusion, 39.2% (n=22 of 56, Figure 19); Philosophy Proper, 11.7% (n=9 of 77, Figure 20); Technology, 12.5% (n=7 of 56, Figure 21); and World History Since 1600, 16.3% (n=16 of 98, Figure 22). Note that prevalence analysis numbers are mathematical averages. The precision of the numbers does not reflect the underlying uncertainties of the values.

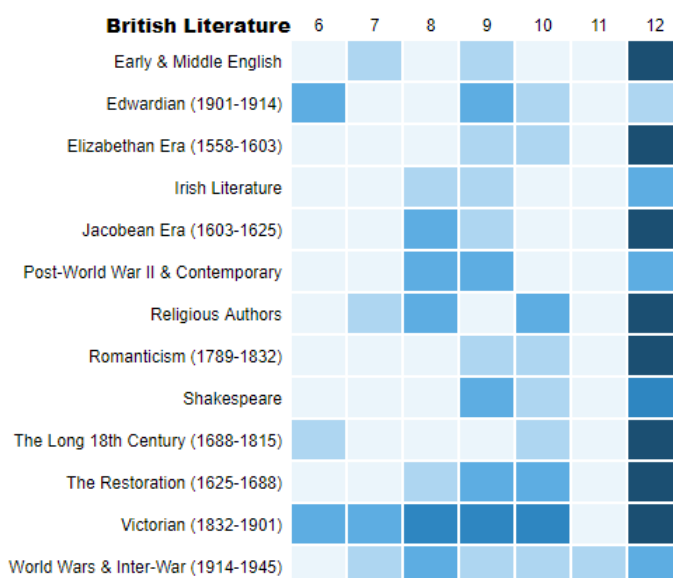


Figure 18. Heat map analysis of the British Literature knowledge domain in Grades 6-12.

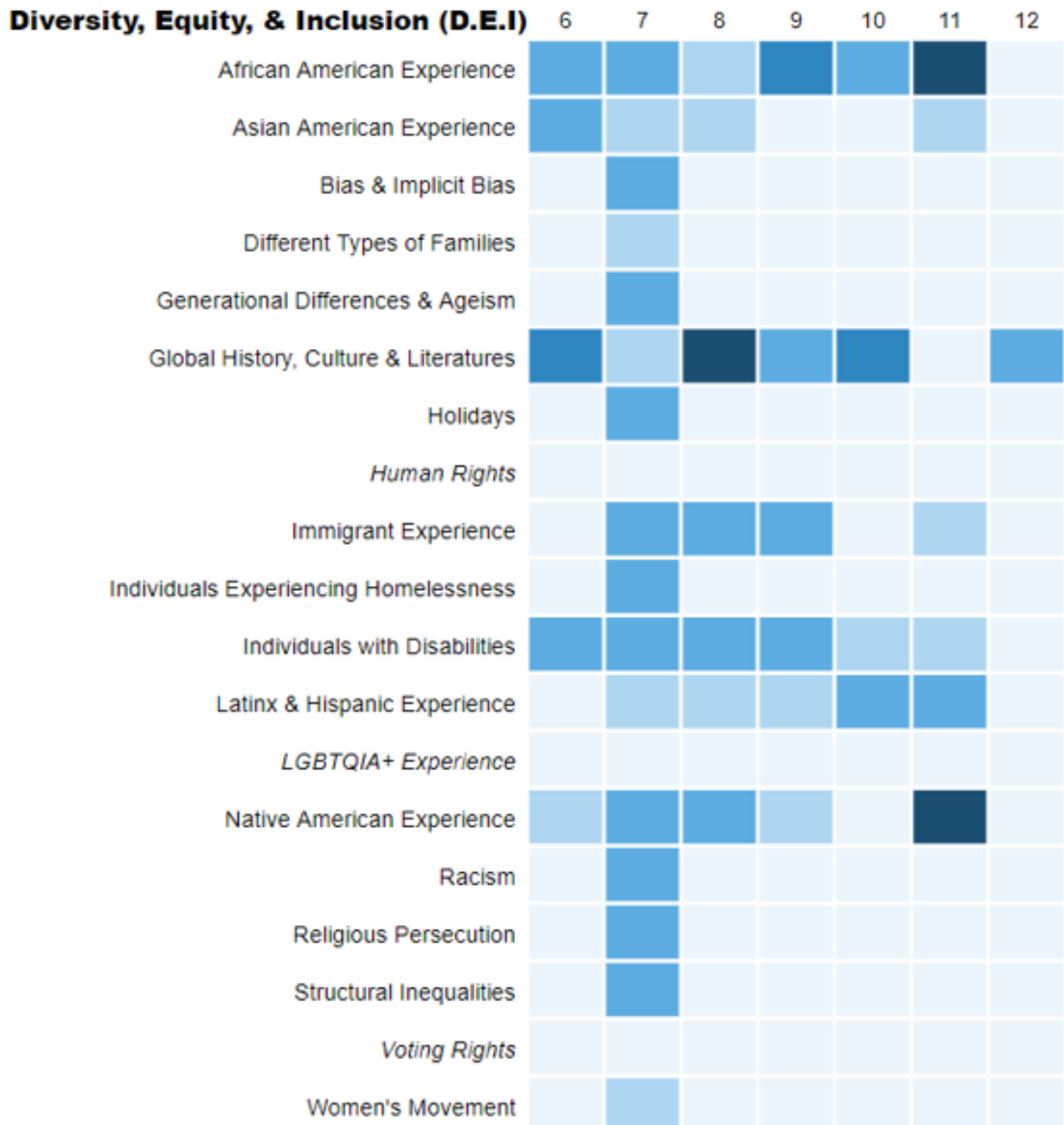


Figure 19. Heat map analysis of the Diversity, Equity, & Inclusion knowledge domain in Grades 6-12.

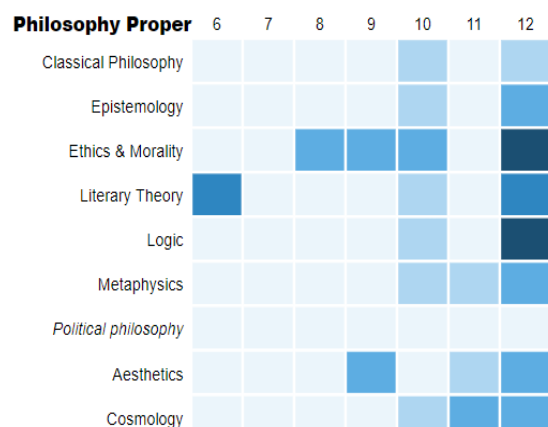


Figure 20. Heat map analysis of the Philosophy Proper knowledge domain in Grades 6-12.

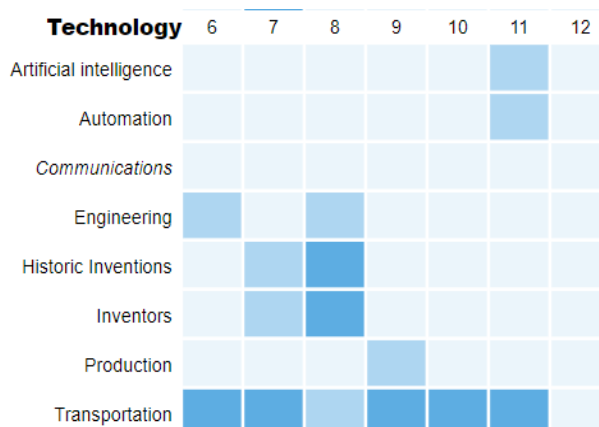


Figure 21. Heat map analysis of the Technology knowledge domain in Grades 6-12.

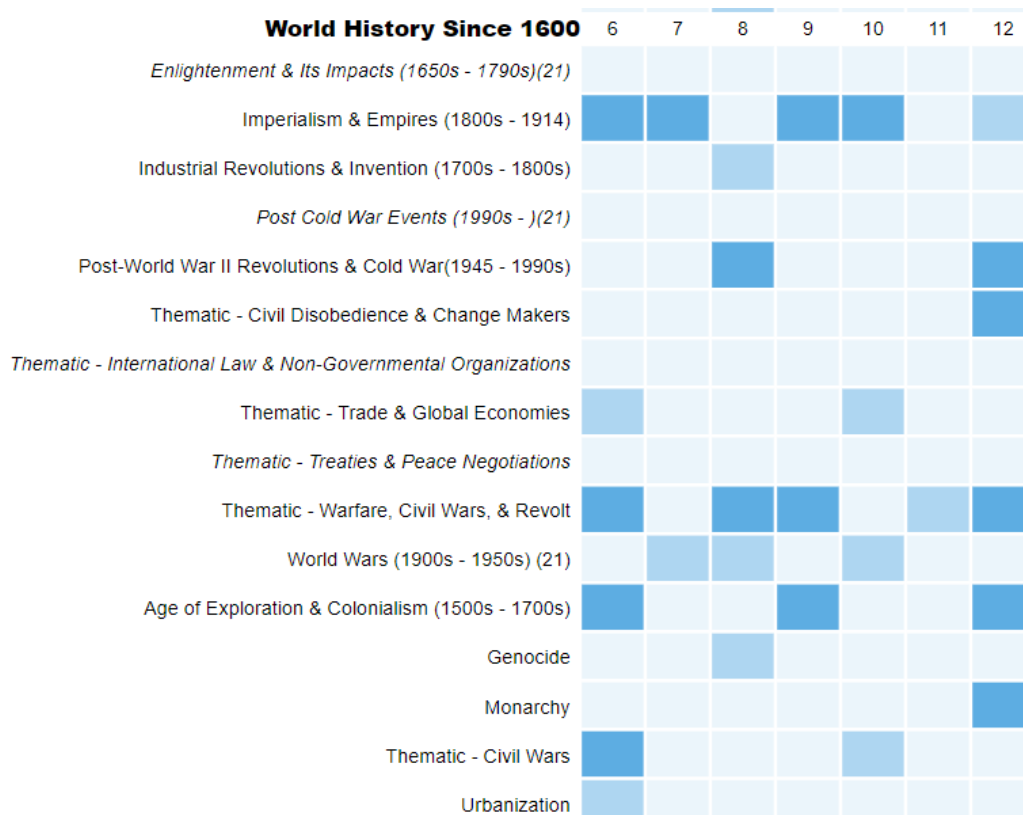


Figure 22. Heat map analysis of the World History Since 1600 knowledge domain in Grades 6-12.

Specific patterns of moderate knowledge building arise within specific topics across grade bands. For example, the most common pattern presents moderate coverage in topics across 42.9% (n=3 of 7) or 57.1% (n=4 of 7) of grade levels. While plenty example exist, some include: Post-World War II & World Wars & Inter-War (1914 – 1945) in British Literature (Figure 18); African American Experience and Immigrant Experience in Diversity, Equity, & Inclusion (Figure 19); Ethics & Morality in Philosophy Proper (Figure 20); Transportation in Technology (Figure 21); and Imperialism and Empires in World

History Since 1600 (Figure 22); These patterns reveal moderate knowledge building arising in many topics within and across grade levels.

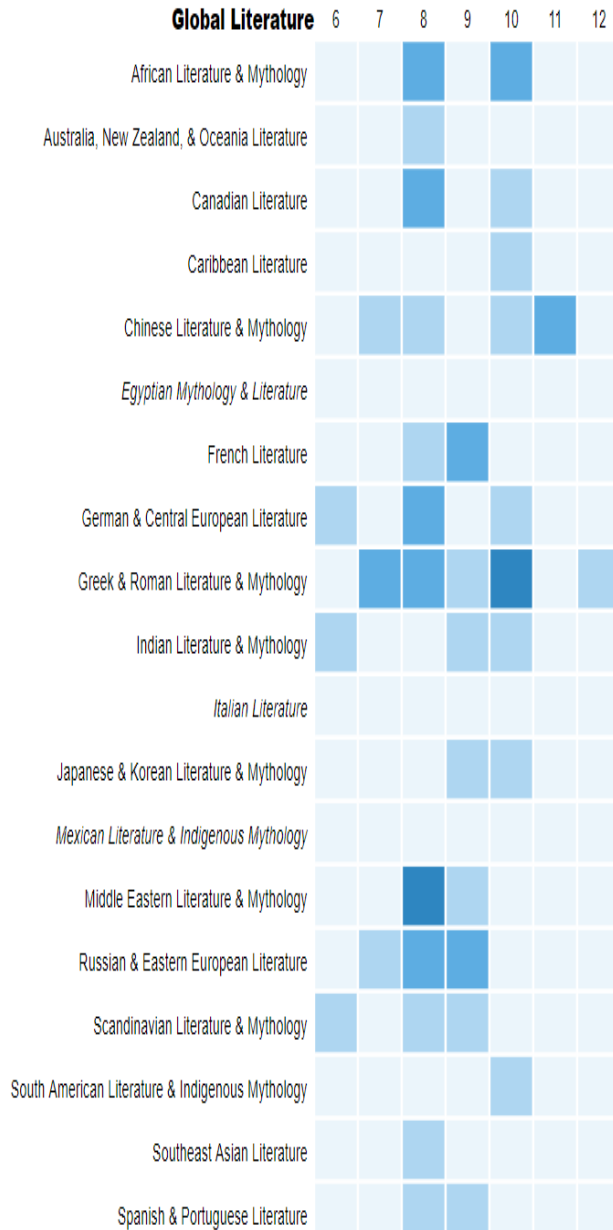
## Weak Knowledge-Building Domains

The curriculum presents insufficient or weak knowledge building in multiple knowledge domains and topics. Weak knowledge-building domains appear in the Heat Maps as light blue, indicating no texts address the topic. We do not perform prevalence analysis on weak domains because there is not enough data to be meaningful.

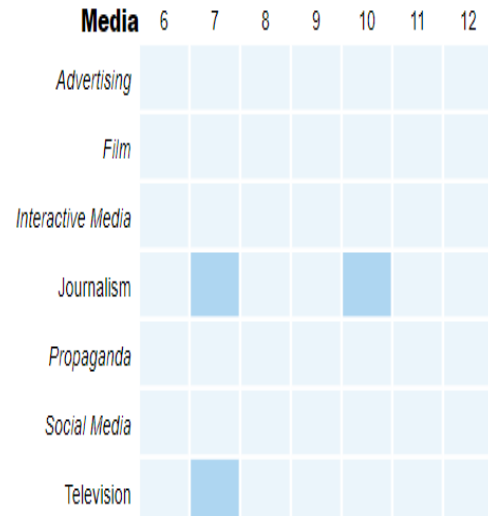
Specifically, eight knowledge domains show very few texts, suggesting weak coverage. These include Global Literature (Figure 23); Media (Figure 24); Music, Art, Architecture (Figure 25); Physical Sciences (Figure 26); U.S. History Since 1865 (Figure 27); U.S. History to 1865 (Figure 28); World Geography (Figure 29); and World History to 1600 (Figure 30). Moreover, the Media knowledge domain shows one text or less that address any topic within grades 6-12 (Figure 24). Text absence may reflect curricular progression decisions and other factors, but significant gaps may be worth examining.

Apart from these overall weak domains, all other knowledge domains display specific weaknesses. One notable pattern of specific weakness is the absence of texts across grade levels. Some examples include: The Beat Movement (1950s) in American Literature (Figure 12); Dystopian in Literature in Literary Genres (Figure 15); Anthropology, Progressivism, and Terrorism in Social Sciences (Politics, Economics, Sociology) (Figure 17); Egyptian Mythology & Literature and Mexican Literature & Indigenous Mythology in Global Literature (Figure 23); Cold War (1947-1991) and Post-9/11 & Current Events in U.S. History Since 1865 (Figure 27); and Africa and Age of Exploration in World History to 1600 (Figure 30). Additionally, while the curriculum presents strong knowledge-building in Religion texts, with only few texts discussing non-Judeo-Christian topics.

A final pattern of weakness presents as a lack of domain coverage within a grade band. A visual scan of the Knowledge Map™ reveals this pattern as empty columns beneath individual grade levels. For example, reviewers classify Physical Sciences (Figure 26) as a weak domain partly because grades 6 - 9 contain no texts on any topic in the domain. Such absence may reflect curricular progression decisions and other factors, but significant gaps may still be worth examining.



*Figure 23. Heat map analysis of the Global Literature knowledge domain in Grades 6-12.*



*Figure 24. Heat map analysis of the Media knowledge domain in Grades 6-12.*

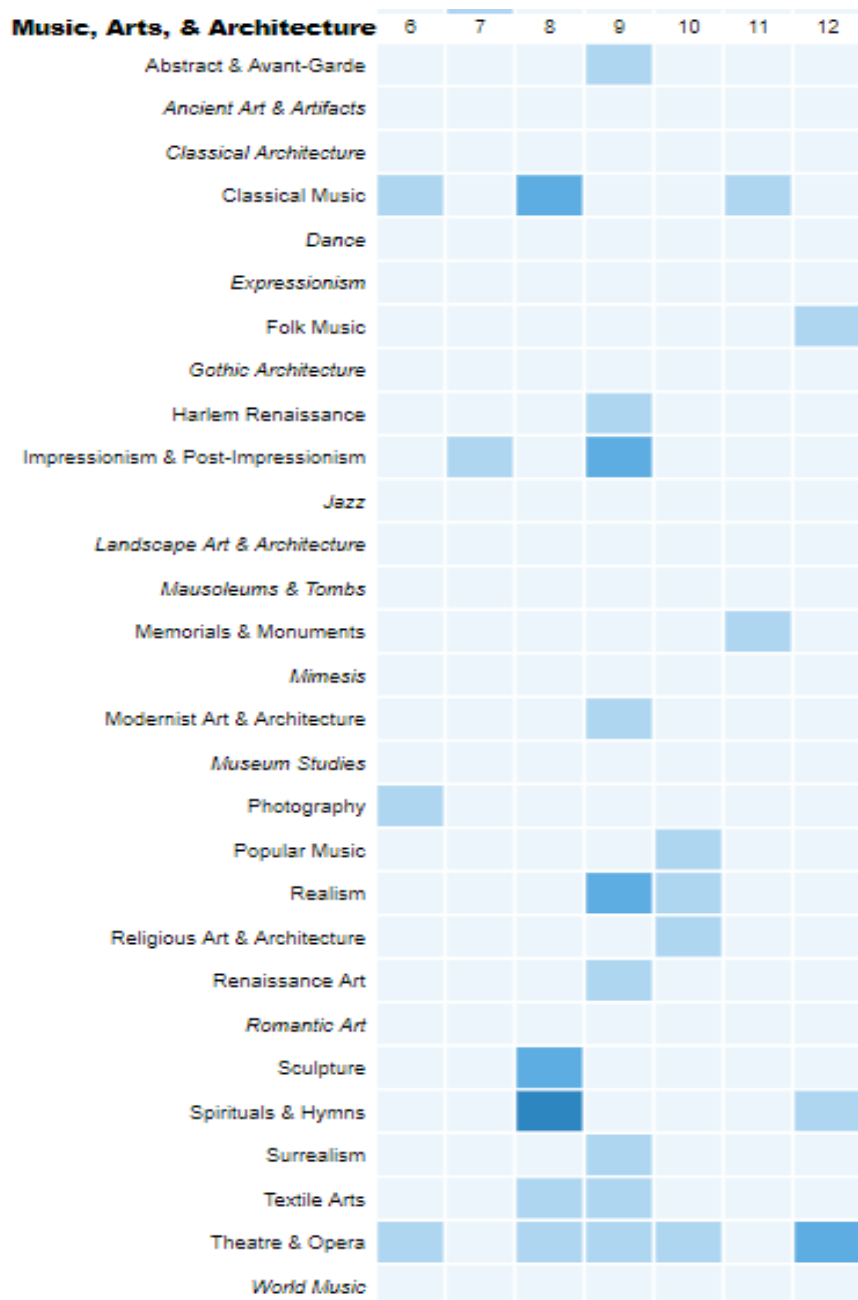


Figure 25. Heat map analysis of the Music, Art, Architecture knowledge domain in Grades 6-12.

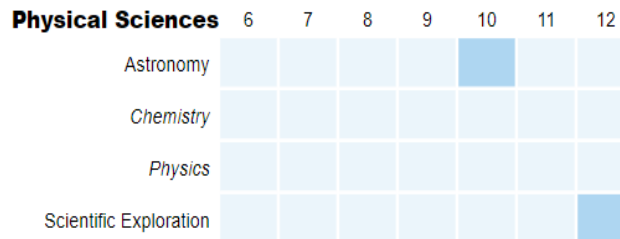


Figure 26. Heat map analysis of the Physical Sciences knowledge domain in Grades 6-12.

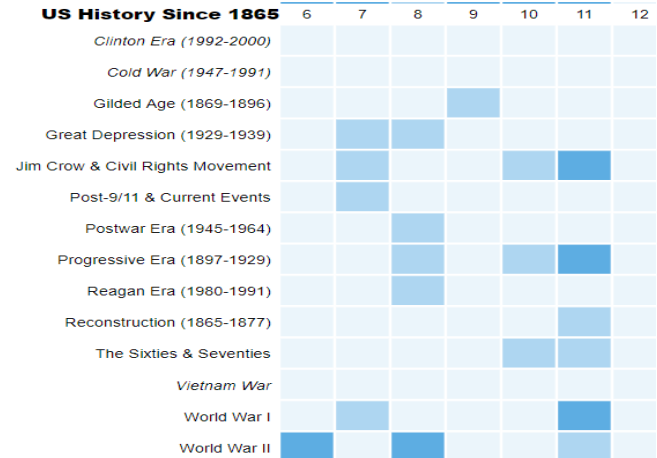


Figure 27. Heat map analysis of the U.S. History Since 1865 knowledge domain in Grades 6-12.

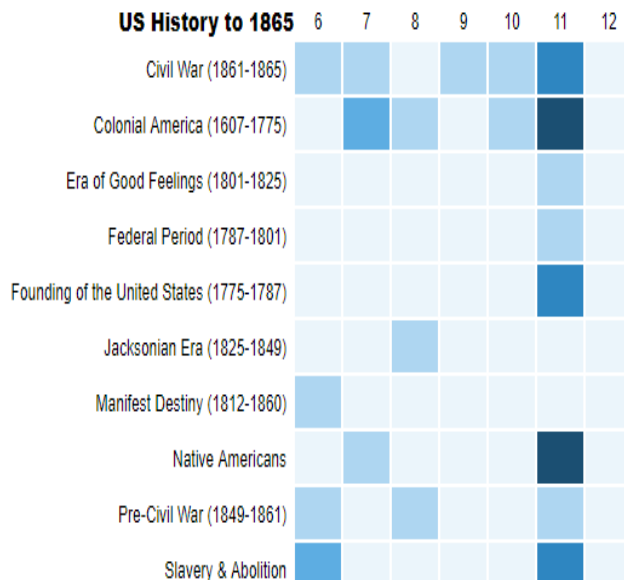


Figure 28. Heat map analysis of the U.S. History to 1865 knowledge domain in Grades 6-12.

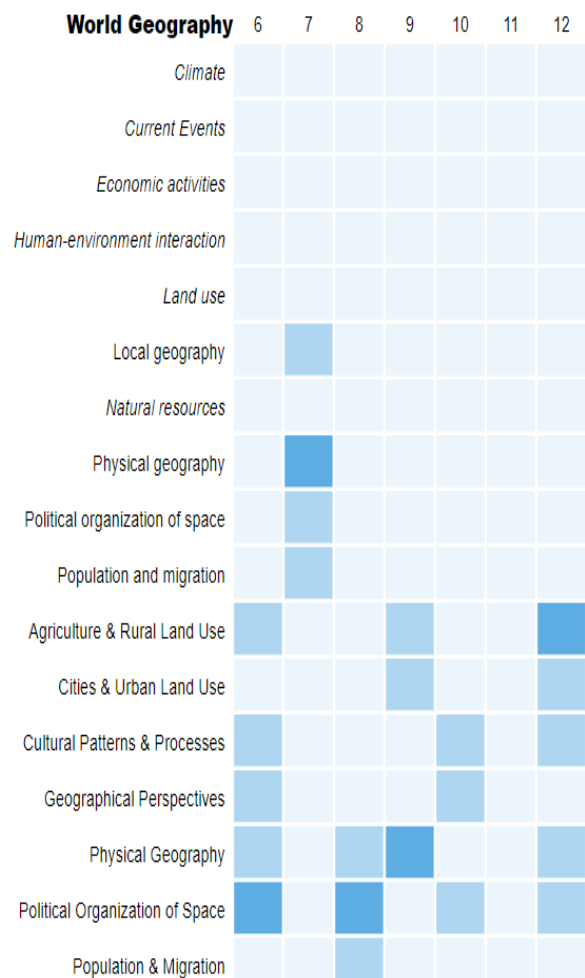


Figure 29. Heat map analysis of the World Geography knowledge domain in Grades 6-12.

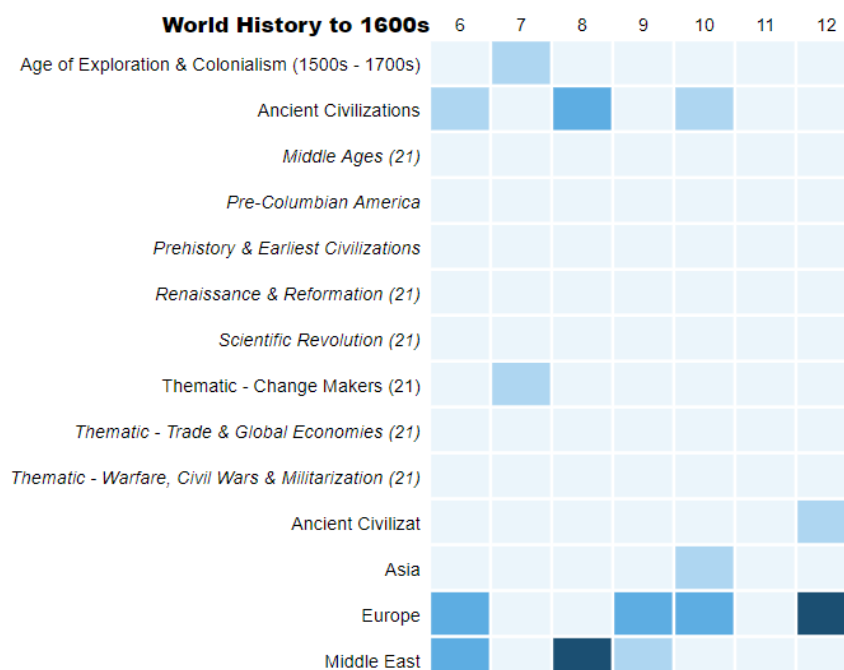


Figure 30. Heat map analysis of World History to 1600 knowledge domain in Grades 6-12.

## Culturally Relevant Domains

Culturally relevant texts represent a spectrum of positive, neutral, and negative aspects of a cultural group's experience in the United States. Texts rated highly for Diversity, Equity, & Inclusion illustrate both strengths and challenges relevant to the history and experience of each cultural group. Many academic materials rate as culturally relevant, ranging from picture books to documentary films. The Institute reviewed BJU Press's materials for cultural responsiveness across the evaluated grade levels.

Within the BJU Press's curriculum, the largest share of culturally relevant materials at the 6 – 12 level relates to the African American Experience and Global History, Cultures, & Literature; at the elementary level, there are no culturally responsive materials in K or 1<sup>st</sup> grade. Grades 3 – 5 incorporate more culturally responsive texts; however, there are no materials presented on certain topics like Racism or Human Rights.

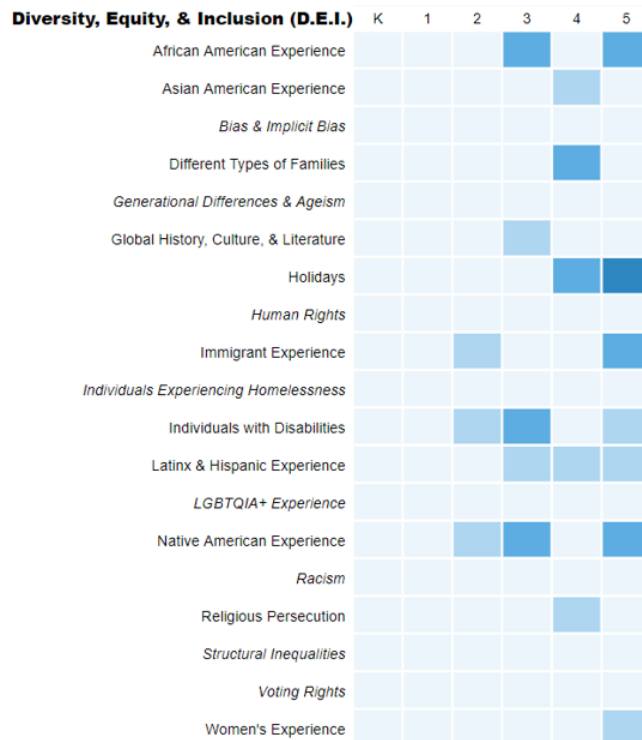


Figure 7 (repeated). Heat map analysis of the Diversity, Equity, & Inclusion knowledge domain in Grades K-5.

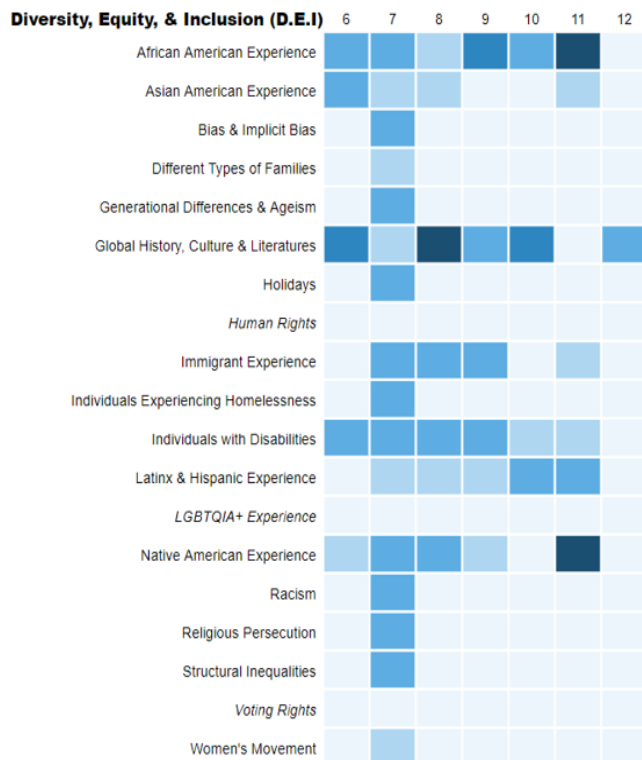


Figure 19 (repeated). Heat map analysis of the Diversity, Equity, & Knowledge domain in Grades 6-12.

## BJU PRESS QUALITY AND COHERENCE

As mentioned previously, the Institute's analysis includes tagging each text for the knowledge domains, topics, and subtopics that it reinforces. The Institute expanded upon the Heat Map analysis and evaluated each text for quality, according to the rubrics below. In addition, the Institute also applies a Coherency Score that rate how well the materials within a unit reinforce the knowledge builds, described in more detail below.

The findings of quality and coherence vary and are not linked. For instance, a unit may score high in overall quality, shown as a percentage, and have a low Coherence Score in terms of how well the texts reinforce the knowledge built in the unit. In other words, units with high overall quality scores may perform weakly on reinforcing central themes through additional materials. The converse is also possible, where a unit scoring low in overall quality may have moderate or strong reinforcement of unit topic.

### Rubrics for Quality

The Institute applied three rubrics for analysis of text quality: a fiction rubric, a nonfiction rubric, and a literary nonfiction rubric. All three rubrics consider content knowledge and language. Fiction and literary nonfiction (i.e., book-length focused on nonfiction material) include other factors relevant to the genres, such as emotion, prominence of the work, and eternal questions. Nonfiction does not consider these factors, and instead, focuses on the accuracy and quality of the source. These factors reside within the "prominence" category under literary nonfiction.

### Fiction and Literary Nonfiction (Total of 15 possible Points)

**Emotion:** Emotion is the degree to which the text is memorable due to its impact upon the reader's affect (e.g., Shakespeare's *Romeo and Juliet*, and Morrison's *The Bluest Eye*).

**Language:** The degree to which the text contains outstanding language and derives from several factors, including:

- Clarity (Baldwin's *The Fire Next Time*, and Austen's *Emma*)
- Appeal to the imagination (Tolkien's *The Lord of the Rings*)
- Sophisticated capacity at multiple levels, including: cultural, social, metaphorical, theological (Achebe's *Things Fall Apart*, Dante's *Divine Comedy*, de Cervantes' *Don Quixote*, and Morrison's *The Bluest Eye*).

**Eternal questions:** Eternal questions form a category about which the text addresses perpetual issues of the human condition, such as: private and public ethics, obedience to the State, family allegiance, meaning and purpose (e.g., Sophocles' *Antigone*, and Camus's *The Stranger*).

**Content knowledge:** Content knowledge is the degree to which text builds students' background knowledge about the world (e.g., Erdrich's *Birchbark House* in elementary school, and Austen's *Pride and Prejudice* in secondary school).

**Prominence:** Prominence represents the degree to which a text is widely known. Several factors determine a text's prominence.

- Longevity: Degree to which the text has entered the American literary canon, meaning that the text remains widely read after at least 50 years since first publication (e.g., Steinbeck's *The Grapes of Wrath* or Thoreau's *Walden*), OR
- Current prominence: Degree to which the text is a contemporary classic, meaning that American schools widely read the text (e.g., Cisneros's *Last House on Mango Street* or Satrapi's *Persepolis*)
- Awards: Degree to which critics recognize the text as outstanding, such as the Nobel Prize in Literature, Booker Prize, John Newberry, Man Booker Award, [PEN/Faulkner Award for Fiction](#), Pulitzer Prize, the [Coretta Scott King](#) awards, or [Pura Belpre Awards](#). More examples of critical literary acclaim linked [here](#).
- Accuracy & Source: For literary nonfiction, accuracy and source quality concern the verifiable factual basis for the information and the bias profile of the source.

## Nonfiction (Total of 12 Possible Points)

**Accuracy:** Accuracy is the degree to which the text is empirically accurate.

**Source quality:** Source quality is the degree to which text comes from a high-caliber source. The Institute assigned an initial numerical value to news sources and added quality scores upon encountering new sources. (For relevant links, click [here](#).)

**Language:** Language as a category represents the degree to which the text is well written and presents its subject matter.

**Content knowledge:** Content knowledge as a category is the degree to which the text effectively builds background knowledge of the topic or subtopic at hand.

## Coherence Analysis

Finally, the Institute generates *Unit Coherence Maps* that illustrate the extent to which the materials reinforce the knowledge built within that unit, measured through shared topical tags.

The *Unit Coherence Map* utilizes a hub and spoke visual, where the unit name appears in the central square and the surrounding squares represent the materials within that unit. The percent shown on each outer square represents the percentage of shared topics weighted against the total number of shared topics within a unit. This means the more a topic is shared within a unit, the higher the percentage for each text that includes that topic; likewise, less-shared topics within a unit will result in a lower percentage for each text. The proximity of each spoke to the central unit square visually represents this relationship. In addition, there is an overall unit Coherence Score in

the upper right corner in blue. The Coherence Score averages the coherency percentages of all texts within a given unit but also includes a .5% penalty for each domain that is not shared in any texts.

The quality and coherence findings for each grade level follow in the sections below. This report highlights the highest- and lowest-quality units for each grade and provides a discussion of knowledge reinforcement within those units. The caption below each graph provides an average quality score for all texts within that unit. The Institute considers a unit or text high-quality if it scores 70% or above. The Institute judges a unit or text rated below 60% of poor quality (Figure 31). The caption also includes the Coherency Score for that unit. Because the Coherency Score is dependent on the number shared topics within a unit, what constitutes a strong Coherency Score will vary from unit to unit.

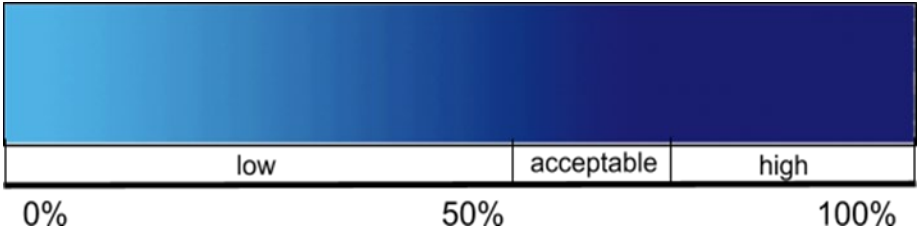


Figure 31. Interpretation of unit quality scores.

# BJU PRESS UNIT COHERENCE FINDINGS: GRADES K-12

## Kindergarten

Kindergarten receives an overall quality score of 46.50%.

## Unit One

The range in coherency scores suggests a moderate to strong knowledge build, particularly in the Fiction, World Cultures & Traditions, and Relationship Skills topics. There are outliers, like *Trucks #19*, which has a score of 2.7% for coherency and does not support one of these topics. Over half of the texts score between the 34 – 44% for overall quality, which is below the Institute’s acceptable range.

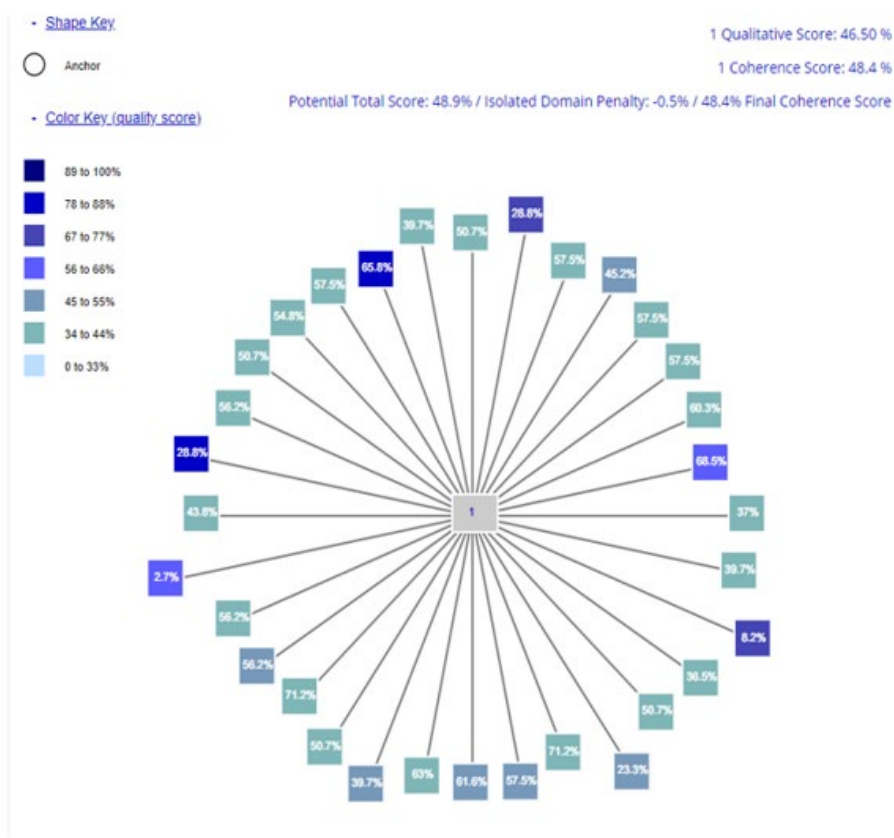


Figure 32. Coherency Chart of Grade K, Unit 1. The average unit score for text quality is 46.50%.<sup>2</sup> Unit coherence score is 48.4%

## First Grade

Grade 1 receives an overall quality score of 55%.

### Highest-Rated Unit

The coherency scores suggest a moderate knowledge build on the topics of Fiction and Relationship Skills. Texts that scored below 10% do not address these most commonly shared topics. Ten of the fourteen texts in this unit score above 67% for quality, suggesting high-quality materials.

<sup>2</sup> The scores are mathematical averages reported to the nearest hundredths place. The precision of the numbers does not reflect the underlying uncertainties of the values.

+ [Shape Key](#)

- [Color Key\\_\(quality\\_score\)](#)

5 Qualitative Score: 66.67 %

5 Coherence Score: 31.9 %

Potential Total Score: 32.4% / Isolated Domain Penalty: -0.5% / 31.9% Final Coherence Score

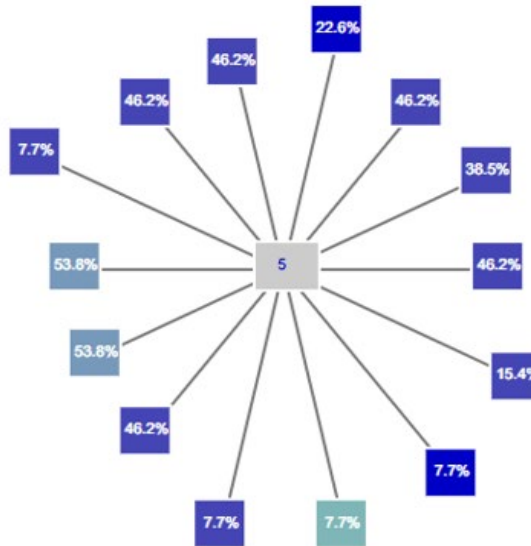
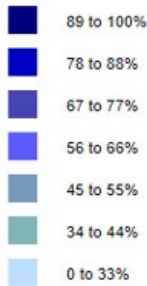


Figure 33. Coherency Chart of Grade 1, Unit 5. The average unit score for text quality is 66.67%. Unit coherence score is 31.9%.

## Lowest-Rated Unit

The small range in coherency scores suggests a strong knowledge build within this unit. The two most commonly shared topics are Fiction and Society. Only one text, *Joseph's Coat*, has a quality rating high enough to meet the Institute's high-quality range.

+ [Shape Key](#)

- [Color Key \(quality score\)](#)

1 Qualitative Score: 40.70 %

1 Coherence Score: 52.8 %

Potential Total Score: 53.3% / Isolated Domain Penalty: -0.5% / 52.8% Final Coherence Score

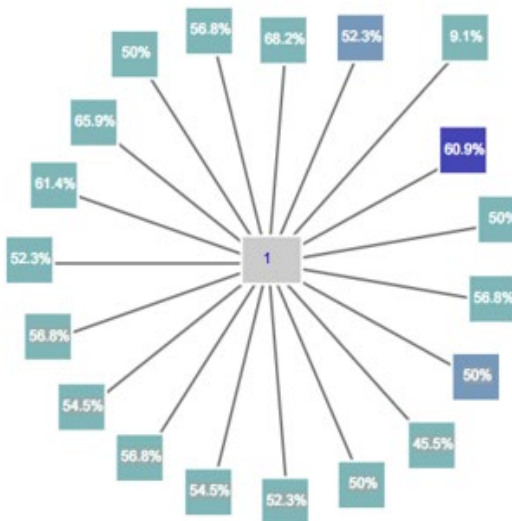
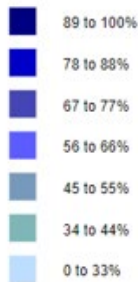


Figure 34. Coherence chart of Grade 1, Unit 1. The average unit score for text quality is 40.70%. Unit coherence score is 52.8%

## Second Grade

Grade 2 receives an overall quality score of 62%.

### Highest-Rated Unit

This unit represents a strong knowledge build on the topics of Identity Development and World Cultures & Traditions. The poem, *What is Brown?*, does not support either topic, resulting in a lower coherency score of 14.2%. Two texts score at 53% for overall quality, but the remaining ten texts score above 65%, suggesting higher quality materials.

+ [Shape Key](#)

+ [Color Key \(quality score\)](#)

4 Qualitative Score: 71.28 %

4 Coherence Score: 40.1 %

Potential Total Score: 46.1% / Isolated Domain Penalty: -6% / 40.1% Final Coherence Score

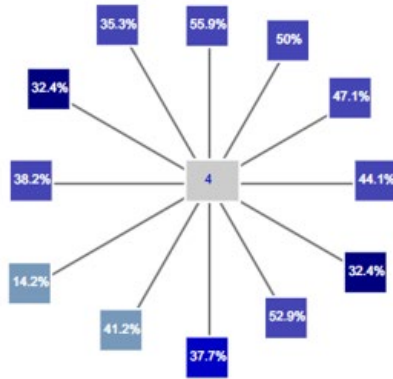


Figure 35. Coherency chart of Grade 2, Unit 4. The average unit score for text quality is 71.28%. Unit coherence score is 40.1%

## Lowest-Rated Unit

The coherency analysis in this unit suggests a moderate knowledge build. The most common topics are Fiction, Animals, and Relationship Skills. The text at 8.9% for coherency, *Hope for a Sinful World*, introduces a new domain and topic not shared by the other texts.

- [Shape Key](#)

○ Anchor

- [Color Key \(quality score\)](#)

1 Qualitative Score: 57.49 %

1 Coherence Score: 35.3 %

Potential Total Score: 35.8% / Isolated Domain Penalty: -0.5% / 35.3% Final Coherence Score

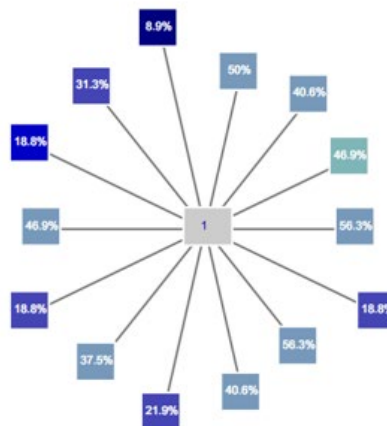
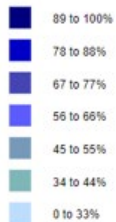


Figure 36. Coherency chart of Grade 2, Unit 1. The average unit score for text quality is 57.49%. Unit coherence score is 35.3%

# Third Grade

Third Grade receives an overall quality score of 69%.

## Highest-Rated Unit

Coherence analysis of Unit 2 suggests a moderate knowledge build on the topics of Fiction, Emotions, and World Cultures & Traditions. Texts, that scored below 20%, do not address one of these three topics.

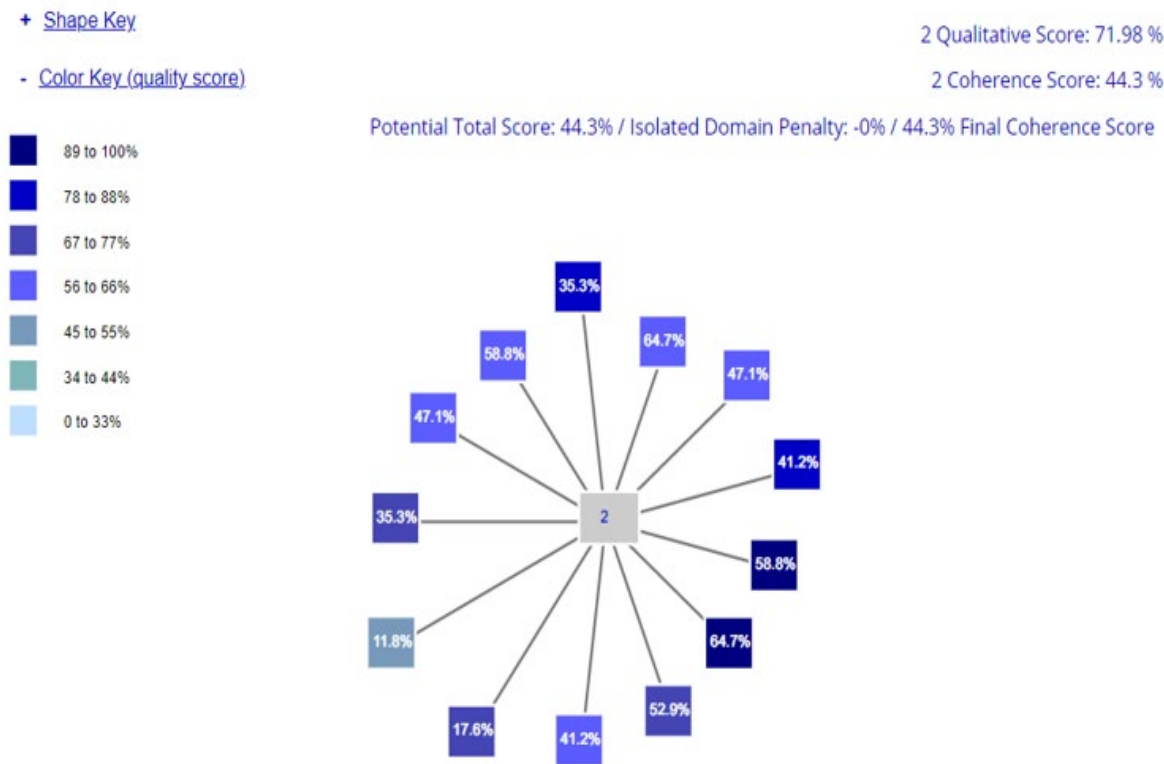


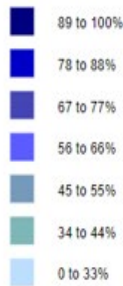
Figure 37. Coherency chart of Grade 3, Unit 2. The average unit score for text quality is 71.98%. Unit coherence score is 44.3%.

## Lowest-Rated Unit

Two texts within Unit 1 score within the Institute’s high-quality range. The range within the coherency scores suggests a moderate knowledge build on the topic of Fiction.

+ Shape Key

- Color Key (quality score)



Potential Total Score: 38.9% / Isolated Domain Penalty: -0.5% / 38.4% Final Coherence Score

1 Qualitative Score: 64.58 %

1 Coherence Score: 38.4 %

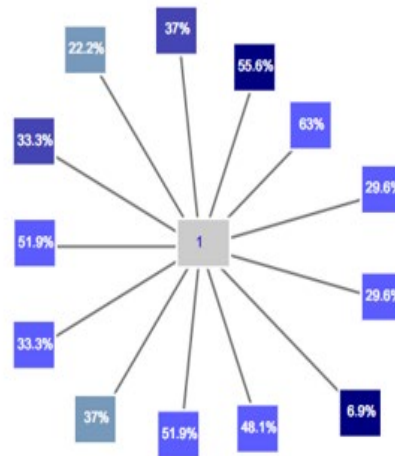


Figure 38. Coherency chart of Grade 3, Unit 1. The average unit score for text quality is 64.58%. Unit coherence score is 38.4%.

## Fourth Grade

Grade 4 receives an overall quality score of 74%.

## Highest-Rated Unit

While many of the texts scored within the Institute's acceptable or high-quality range, the coherency scores suggest a weak knowledge build. Most topics are only shared with 4 – 5 of the texts within the unit.

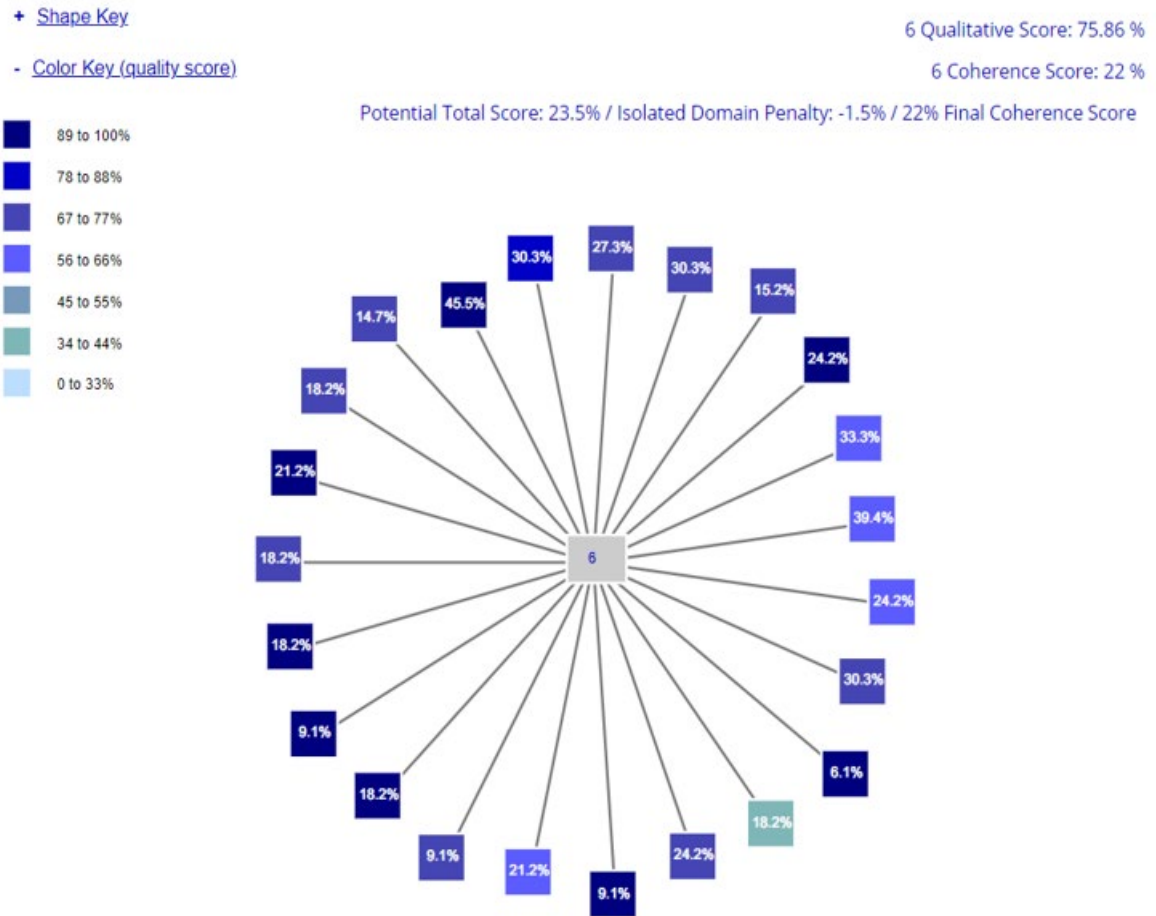


Figure 39. Coherency chart of Grade 4, Unit 6. The average unit score for text quality is 75.86%. Unit coherence score is 22.0%.

## Lowest-Rated Unit

The overall qualitative score is within the Institute's acceptable range; however, six texts scored below this range. The coherency scores suggest a weak knowledge build. Most topics are only shared with 3 - 4 of the texts within the unit.



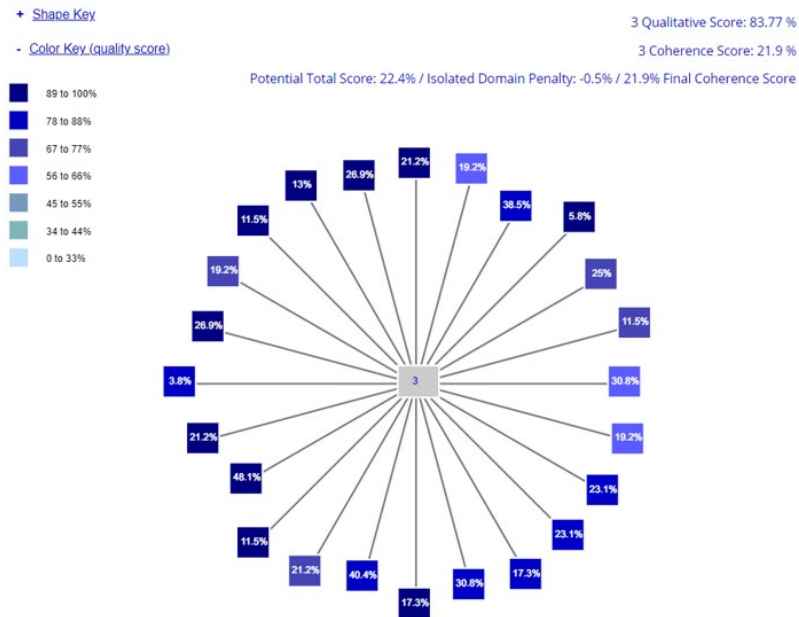


Figure 41. Coherency chart of Grade 5, Unit 3. The average unit score for text quality is 83.77%. Unit coherence score is 21.9%.

## Lowest-Rated Unit

There are four texts in this unit that score below the Institute's acceptable rating for quality. Coherence analysis indicates a weak to moderate knowledge build. There is no commonly shared topic among a majority of the texts.

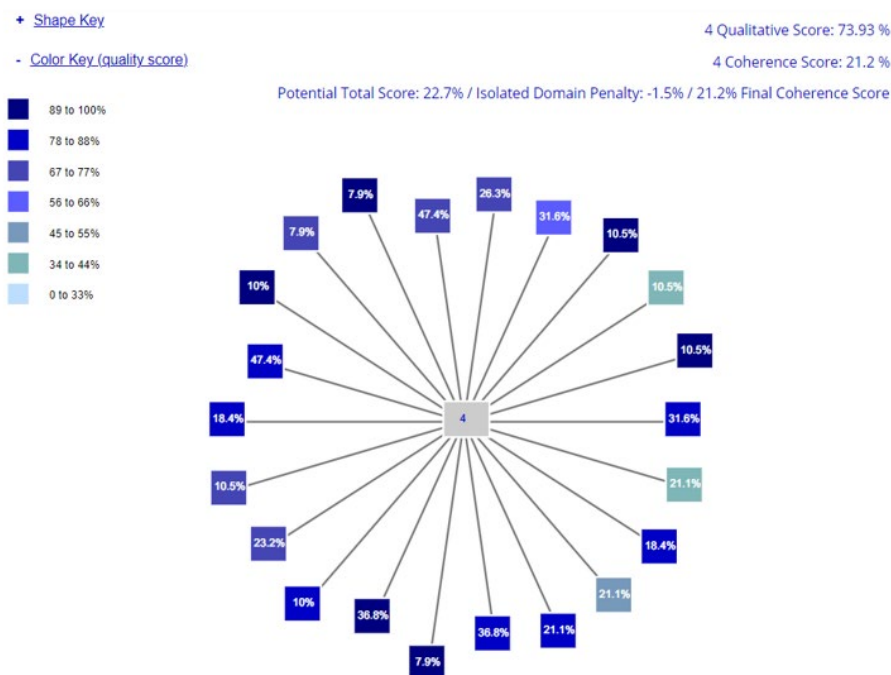


Figure 42. Coherency chart of Grade 5, Unit 4. The average unit score for text quality is 73.93%. Unit coherence score is 21.2%.

# Sixth Grade

Grade 6 receives an overall quality score of 57.56%.

## Highest-Rated Unit

The Human Condition has the most shared topics in Unit 4. However, there are a large array of topics covered in this unit. Some are shared with other materials; some are not. This suggests a weak to moderate knowledge build.

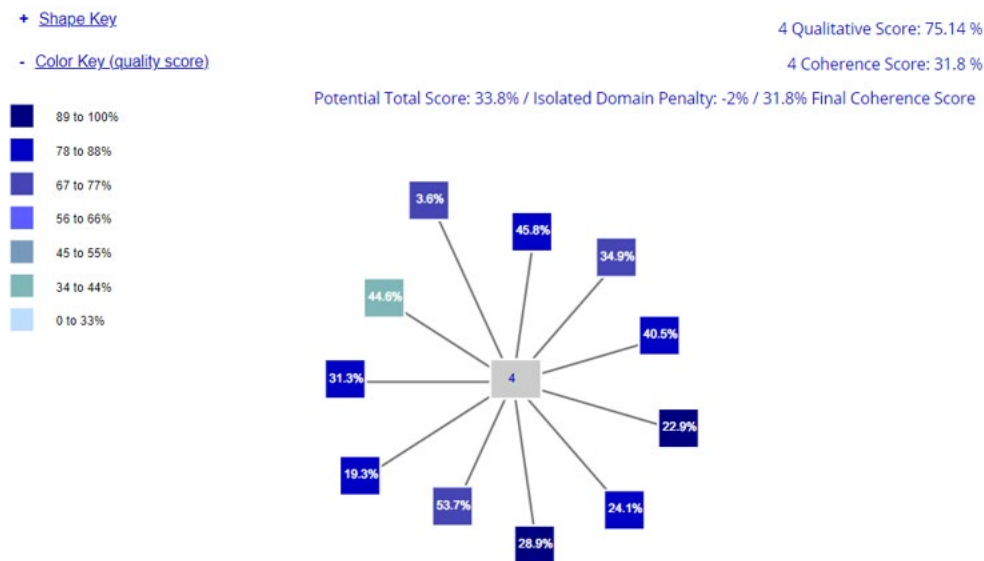


Figure 43. Coherency chart of Grade 6, Unit 4. The average unit score for text quality is 75.14%. Unit coherence score is 31.8%.

## Lowest-Rated Unit

No materials in this unit score within the Institute’s acceptable range for quality. Individual, State, & Society appears as the most shared topic among the texts, but while some texts are in the same domain, they address disparate other topics such as Family, Race, or Community. This suggests a moderate knowledge build.

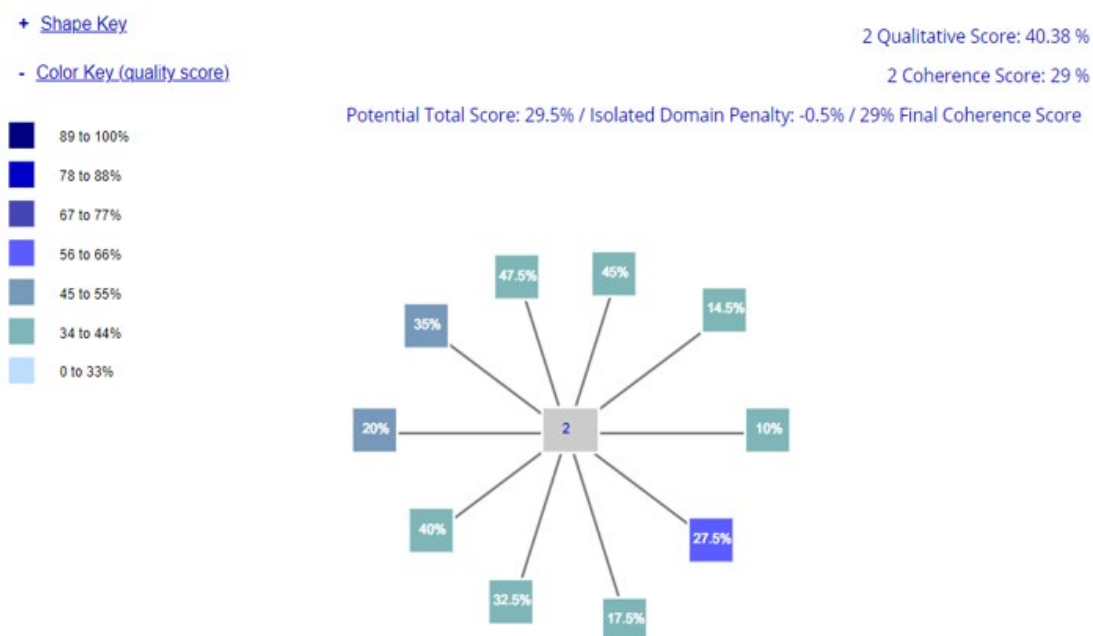


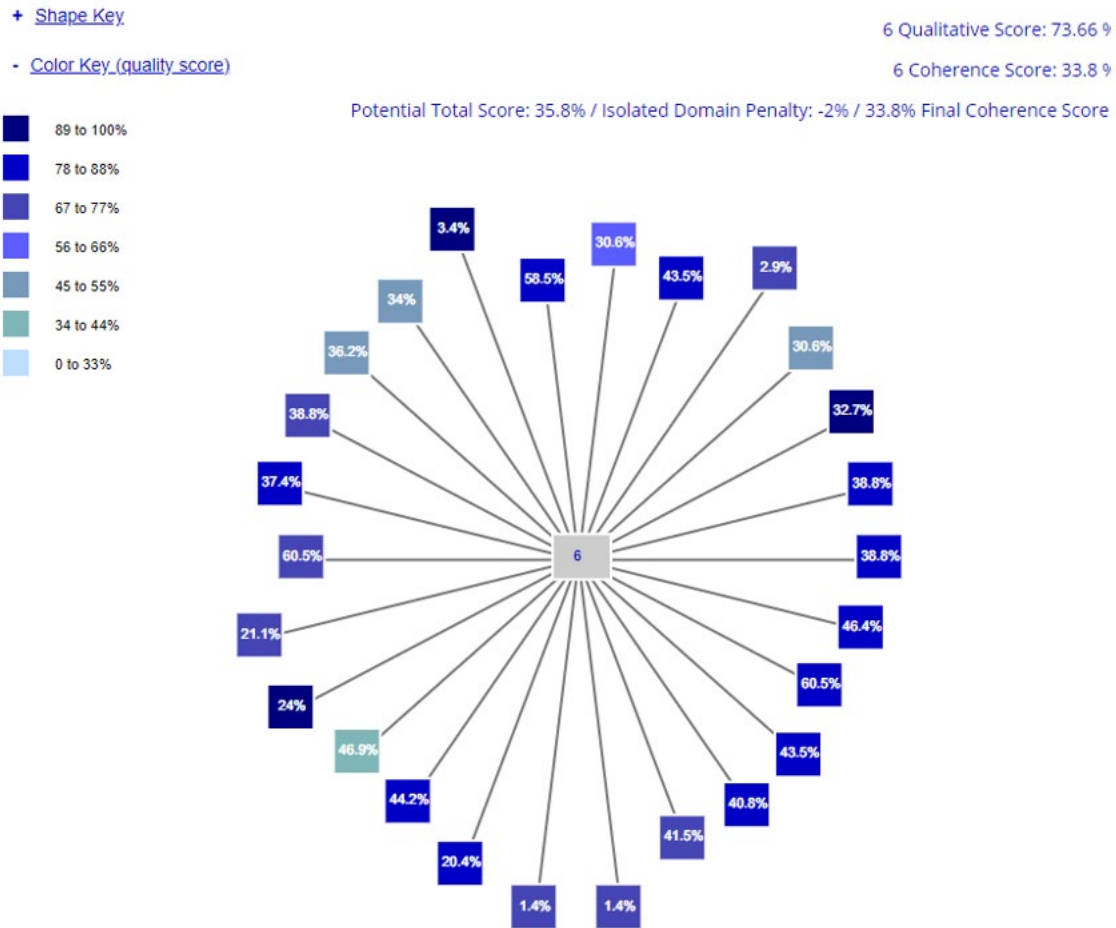
Figure 44. Coherency chart of Grade 6, Unit 2. The average unit score for text quality is 40.38%. Unit coherence score is 29%.

## Seventh Grade

Grade 7 receives an overall quality score of 71.56%.

### Highest-Rated Unit

There is a strong knowledge build in this unit on the topic of Family. *Paul Revere's Ride* and *Lift Every Voice and Sing* score below 10% for not addressing this topic. Two other texts, each scoring below 10%, address the Writing about Writing topic. While five texts score below the Institute's acceptable range for quality, the majority of materials are of high quality.



*Figure 45. Coherency chart of Grade 7, Unit 6. The average unit score for text quality is 73.66%. Unit coherence score is 33.8%.*

## Lowest-Rated Unit

While Human Condition and Character Development are two common topics within this unit, there are several texts that score below 10% for coherency. Two of these texts are texts that focus on the Writing about Writing topic. There are eight materials in this unit that below the Institute's acceptable range for quality.

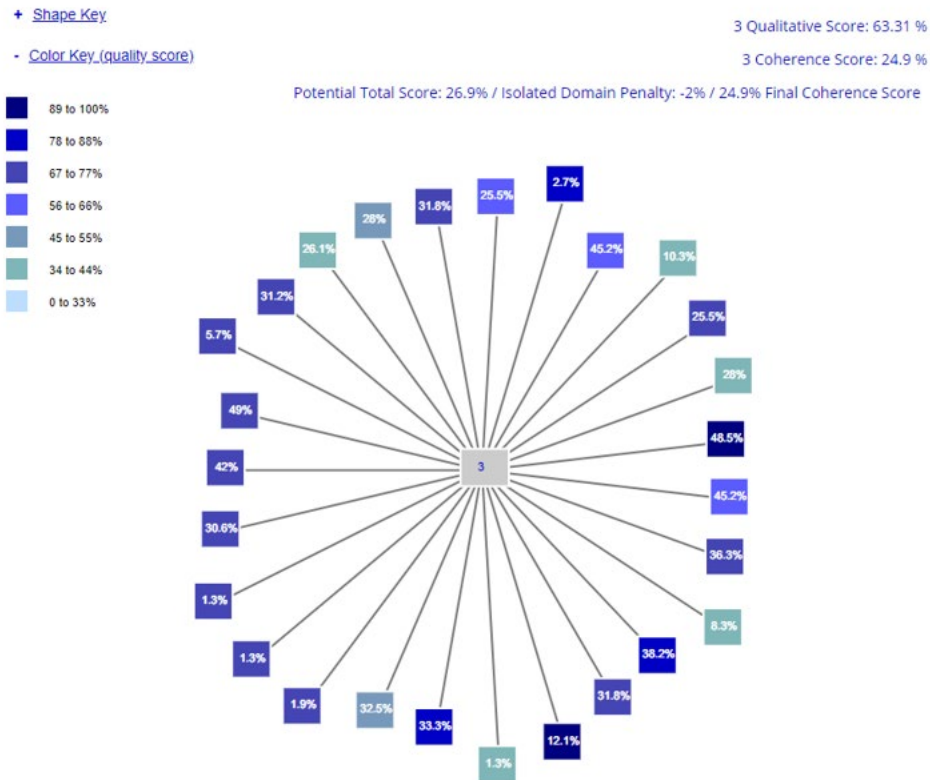


Figure 46. Coherency Chart of Grade 7, Unit 3. The average unit score for text quality is 63.31%. Unit coherence score is 24.9%.

## Eighth Grade

Grade 8 receives an overall quality score of 79%.

### Highest-Rated Unit

The high coherence score in this unit suggests a strong knowledge build. There are several shared topics among the materials including Christianity, Post World War II Revolutions & Cold War, and Post World War II & Contemporary Literature. All texts score within the Institute's acceptable range for quality.

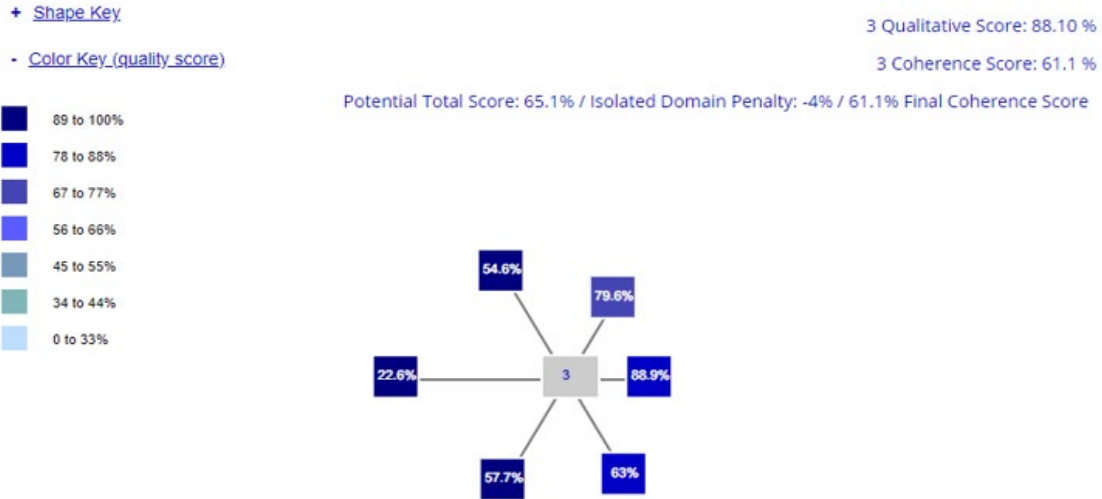


Figure 47. Coherency chart of Grade 8, Unit 3. The average unit score for text quality is 88.10%. Unit coherency score is 61.1%.

## Lowest-Rated Unit

Unit 6 has a high final coherency score; however, there is a large range in individual scores, and several domains are addressed in only one text. This suggests a moderate knowledge build. A handful of materials score below 45% for quality, which is below the Institute's acceptable range.

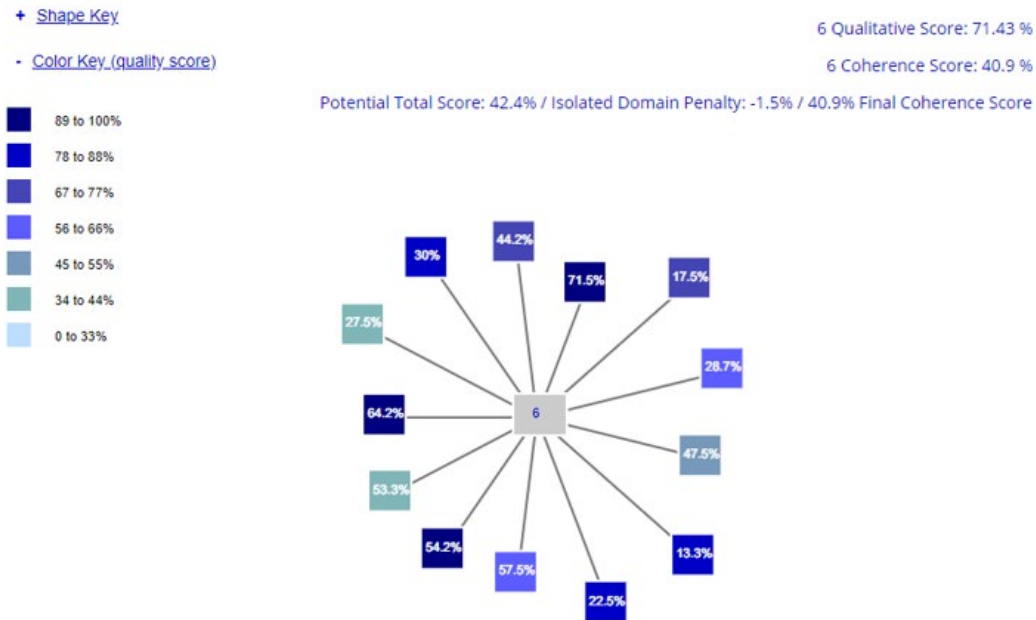


Figure 48. Coherency chart of Grade 8, Unit 6. The average unit score for text quality is 71.43%. Unit coherency score is 40.9%.

## Ninth Grade

Ninth Grade receives an overall quality score of 79.37%.

### Highest-Rated Unit

The tight range and high overall coherence score suggest a strong knowledge build. However, it is also important to note that several domains are not shared among the texts such as World History Since 1600s and World History to 1600s. All the texts score at or above the Institute's acceptable range for quality.

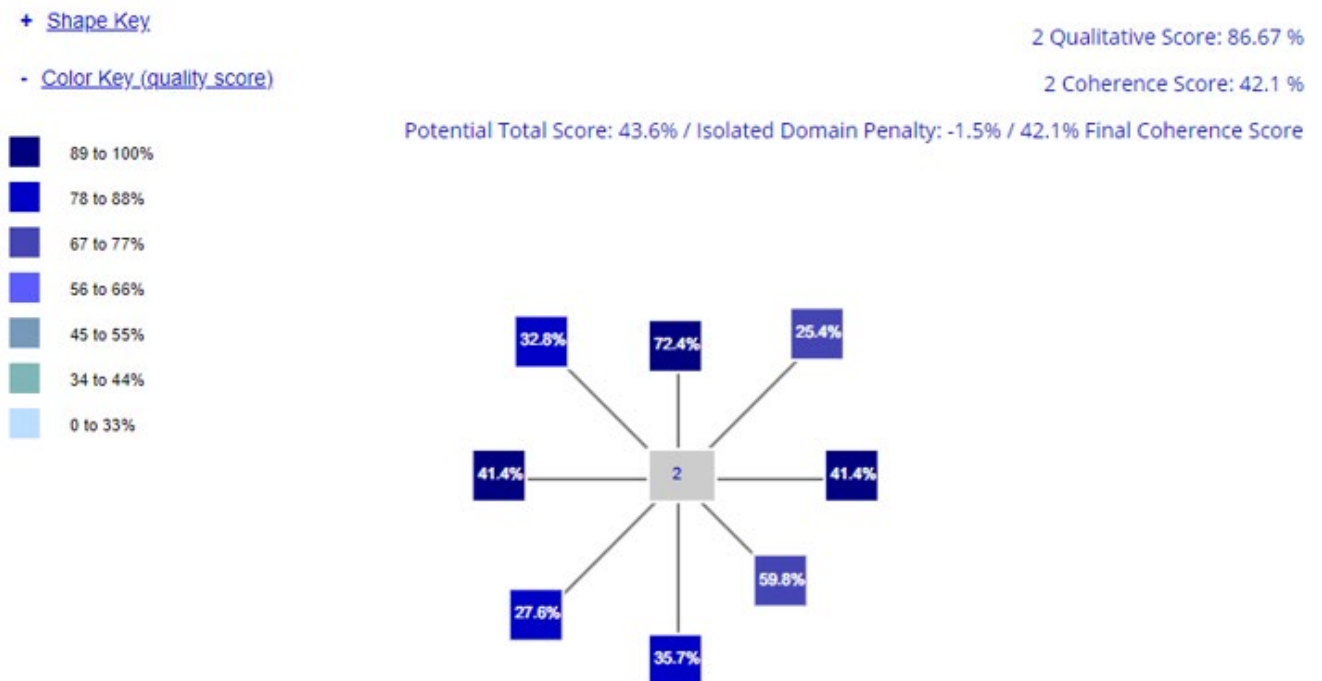


Figure 49. Coherency chart of Grade 9, Unit 2. The average unit score for text quality is 86.67%. Unit coherence score is 42.1%.

### Lowest-Rated Unit

Almost all the materials in this unit share the topic of Class. While this supports a strong knowledge build for this topic, thirteen domains are introduced but not reinforced by any other of the unit's materials, resulting in a 6.5% penalty. The text, *After the Battle*, has the only rating below the Institute's acceptable rating for quality.

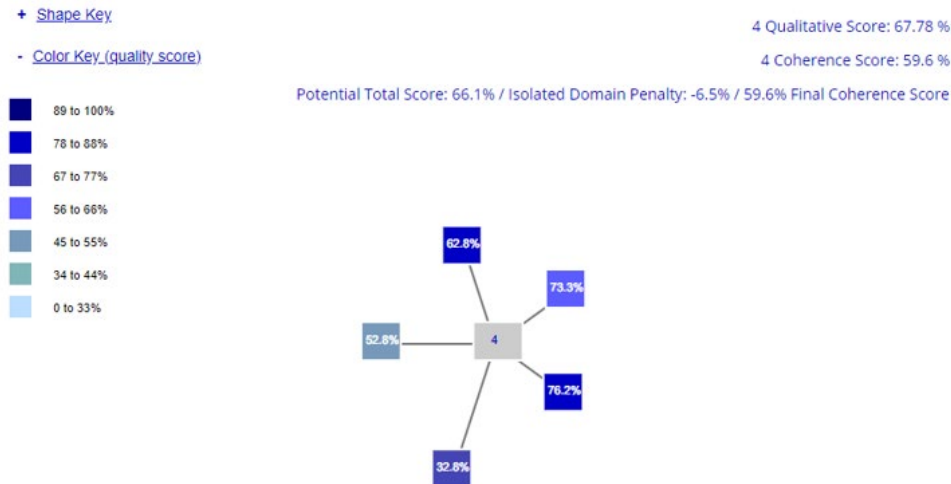


Figure 50. Coherency chart of Grade 9, Unit 4. The average unit score for text quality is 67.78%. Unit coherence score is 59.6%.

## Tenth Grade

Grade 10 receives an overall quality score of 71.32%.

### Highest-Rated Unit

Global History, Literature, and Cultures is the most commonly shared topic for unit 5. The materials also share either the Greek & Roman Literature & Mythology topic or Human Condition topic. The high number of shared topics gives this unit a high coherence score, suggesting a strong knowledge build. Moreover, only one text scores below the Institute's acceptable range.

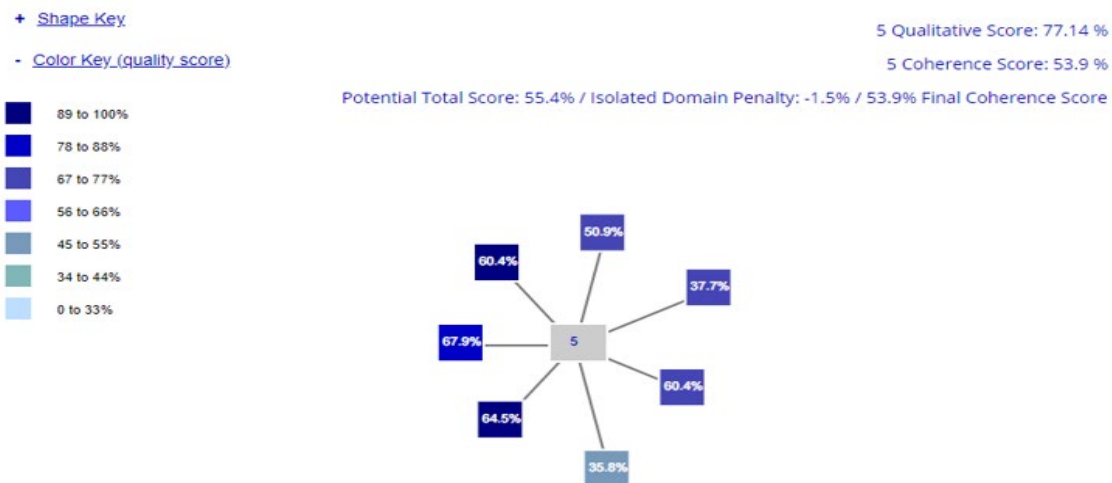


Figure 51. Coherency chart of Grade 10, Unit 5. The average unit score for text quality is 77.14%. Unit coherence score is 53.9%.

## Lowest-Rated Unit

Half of this unit's materials score above the Institute's acceptable range for quality, and half score below. The coherence analysis suggests a moderate to strong knowledge build with Human Condition and Class being two of the most commonly shared topics. *How to Get Things Done* has the lowest coherency score because it does not address any of the shared topics.

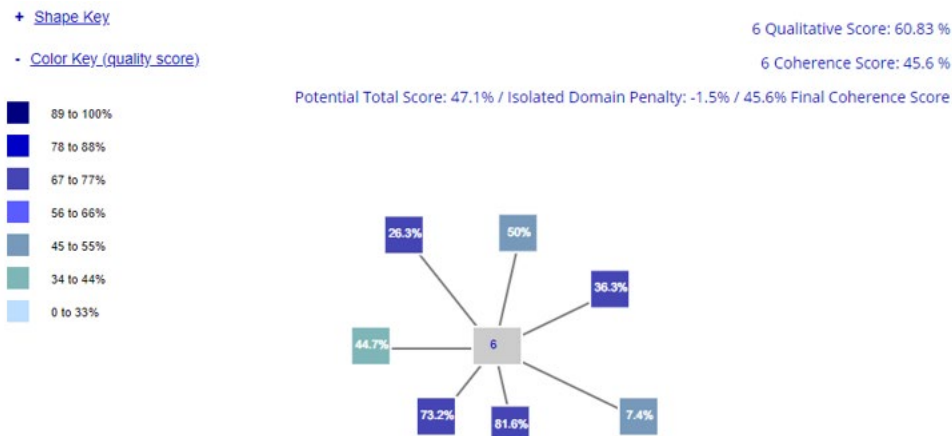


Figure 52. Coherency chart of Grade 10, Unit 6. Score for text quality is 60.83%. Unit coherence score is 45.6%.

## Eleventh Grade

Eleventh Grade receives an overall quality score of 83.52%.

## Highest-Rated Unit

All texts in Unit 6 are within the Institute's high-quality range. The unit presents a moderate to strong knowledge build, focusing on the topic of the Civil War. The *Narrative of Frederick Douglass* has a lower coherency score as it focuses on the Slavery & Abolition topic versus the Civil War topic.

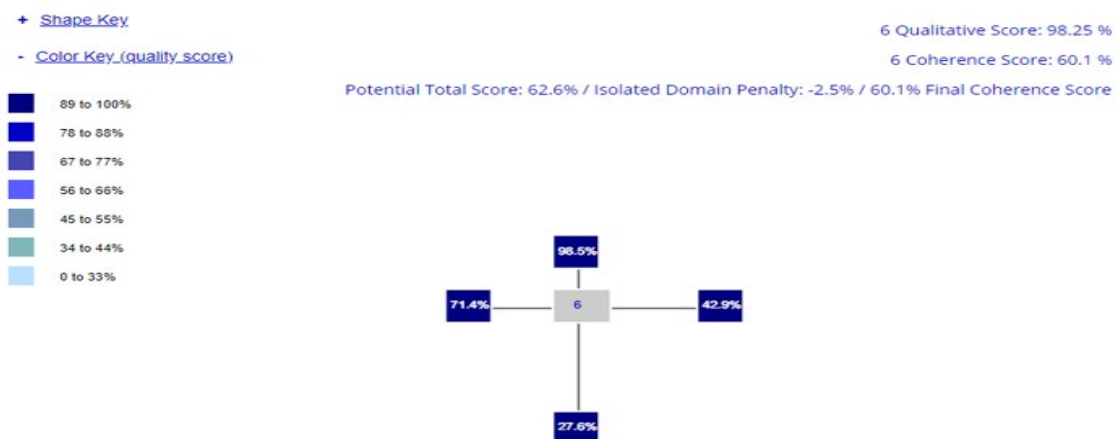


Figure 53. Coherency chart of Grade 11, Unit 6. The average unit score for text quality is 98.25%. Unit coherence score is 60.1%.

## Lowest-Rated Unit

While several texts have a low-quality score, ten of the fourteen materials have a high-quality rating. The coherency scores suggest a moderate to strong knowledge build, focusing on the topic of Post-World War II & Contemporary Literature. Texts with a coherency score below 25% do not support this topic.

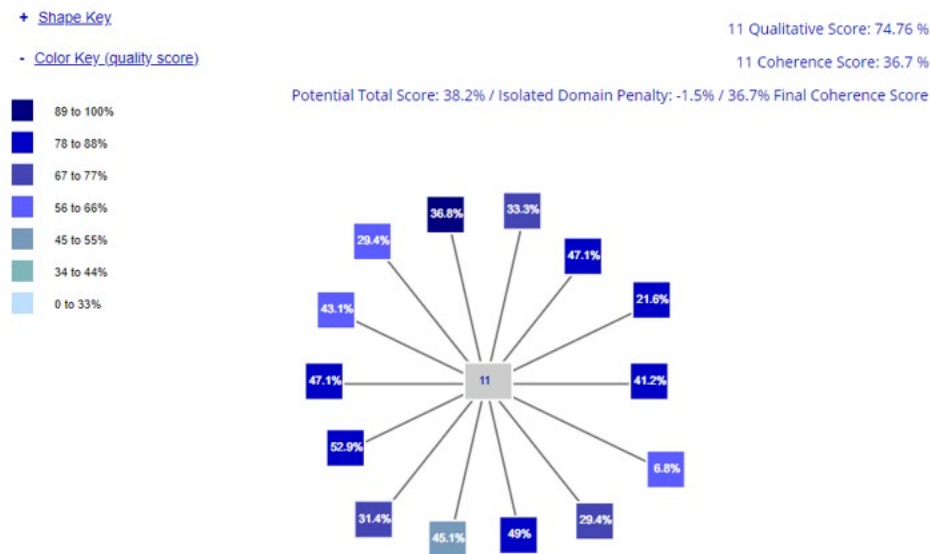


Figure 54. Coherency chart of Grade 11, Unit 11. The average unit score for text quality is 75.56%. Unit coherence score is 36.7%.

## Twelfth Grade

Grade 12 receives an overall quality score of 82.92%.

## Highest-Rated Unit

The final coherence score suggests a strong knowledge build for this unit. There are multiple shared topics throughout including Logic, Ethics & Morality, Human Condition, and Fear. All the texts score within the Institute's acceptable to high-quality range.

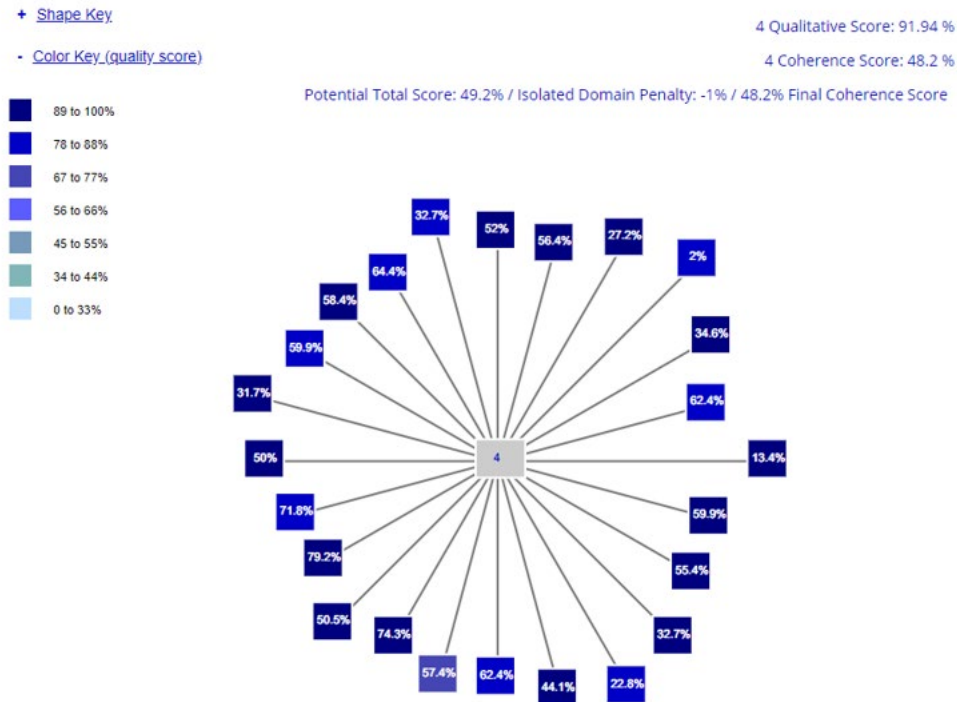


Figure 55. Coherency chart of Grade 12, Unit 4. The average unit score for text quality is 91.94%. Unit coherence score is 48.2%.

## Lowest-Rated Unit

This unit presents a strong knowledge build with all the materials addressing the Early & Middle English Literature topic. While a couple texts have low quality scores, the overall quality of this unit is with the Institute's high-quality range.

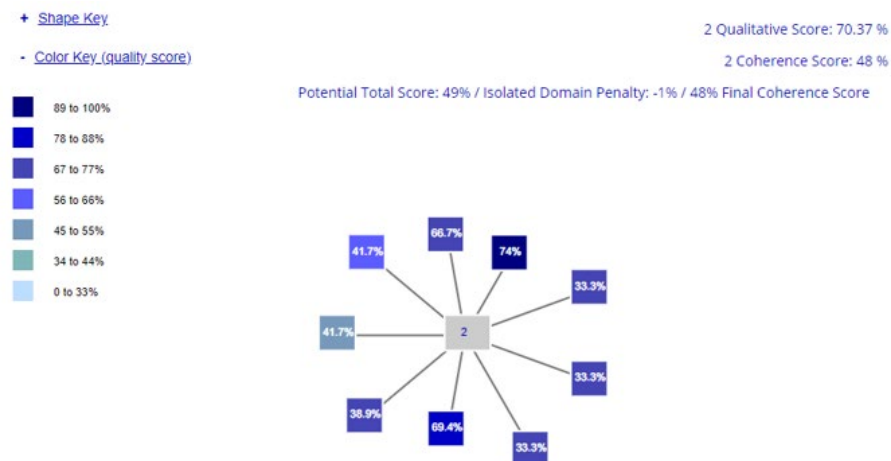


Figure 56. Coherency chart of Grade 12, Unit 2. The average unit score for text quality is 70.37%. Unit coherence score is 48.0%.

In summary, grades K-12 represent a range of unit quality scores. Figure 57, below, shows for each grade level the overall quality score as well as high and low scores for each unit within grades. Grades K, 1, and 6 score below the 60th percentile for overall quality. Grade 2 scores in the 60th percentile for overall quality, which is acceptable. The highest-scoring grades for overall quality are Grades 5, 11 and 12, each scoring in the 80th percentile. In terms of the difference between high- and low-scoring units, grades 6 and 10 show a difference of over 30 percentage points, suggesting greater inconsistency in quality of texts. Grades 3 - 5 shows less than ten percent difference between high-and low-scoring units, suggesting this grade shows the most consistency.

<b>Grade</b>	<b>Overall Quality Score</b>	<b>Unit High Score</b>	<b>Unit Low Score</b>	<b>Difference (High-Low)</b>
K	46.50%	46.50%		0%
1	55.21%	66.67%	40.70%	25.97%
2	62.25%	71.28%	57.49%	13.79%
3	69.04%	71.98%	64.58%	7.40%
4	73.98%	75.86%	66.67%	9.19%
5	86.97%	83.77%	73.93%	9.84%
6	57.56%	75.14%	40.38%	34.76%
7	71.56%	73.66%	63.31%	10.35%
8	79.04%	88.10%	71.43%	16.67%
9	79.37%	86.67%	67.78%	18.89%
10	71.32%	100%	60.83%	39.17%
11	83.52%	98.25%	75.56%	22.69%
12	82.92%	91.94%	70.37%	21.57%

*Figure 57. Summary of unit quality scores in Grades K-12.*

## LEARN MORE

This report is one of twelve ELA Knowledge Map™ reports released in Winter 2022 by the Johns Hopkins Institute for Education Policy. The release of these reports was accompanied by a Findings Summary, outlining the overarching themes across all ELA curricula analyzed. View the other ELA Knowledge Map™ reports and learn more about the importance of high-quality curriculum at [edpolicy.education.jhu.edu](https://edpolicy.education.jhu.edu).

### About the Institute

The [Johns Hopkins University Institute for Education Policy](https://edpolicy.education.jhu.edu) is dedicated to integrating research, policy, and practice to achieve educational excellence for all of America's students. Specifically, we connect research to the policies and practices that will ensure all children have access to intellectually challenging curricula, highly-effective educators, and school models that meet students' diverse needs. By delivering the strongest evidence to the policymakers who set the course and the practitioners who teach and lead, we hope to serve the American children who enter our classrooms every day.

### About BJU Press

[BJU Press](https://www.bjupress.com) provides educational materials written from a biblical worldview that focus on academic rigor and encourage critical thinking—all supported by appropriate educational technology.

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<sup>i</sup> Reid Smith et al., "[The Role of Background Knowledge in Reading Comprehension: A Critical Review](#)," *Reading Psychology* 42, no. 3 (April 3, 2021): 214–40). Sonia Q. Cabell and Hyejin Hwang, "Building Content Knowledge to Boost Comprehension in the Primary Grades," *Reading Research Quarterly* 55, no. S1 (2020): S99–107, <https://ila.onlinelibrary.wiley.com/doi/full/10.1002/rrq.338> and also Kathryn S. McCarthy and Danielle S. McNamara, "The Multidimensional Knowledge in Text Comprehension Framework," *Educational Psychologist* 56, no. 3 (July 3, 2021): 196–214, <https://doi.org/10.1080/00461520.2021.1872379>.

<sup>ii</sup> "Standards aligned" generally refers to the Common Core State Standards.



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