Coding Data and Development of Conclusions

Content Area: **Social Studies**
Course(s):
Time Period: **Marking Period 3**
Length: **10 Weeks**
Status: **Published**

Summary

In the Action Research course, students develop complex and rigorous research projects around a topic of their choosing based on their own interest. Emphasizing collaboration, critical thinking, and ethical considerations, the course guides students through the process of designing, implementing, and presenting their research findings, including learning advanced research methodologies, such as qualitative and quantitative data collection and analysis. The course culminates in a public exhibition where students present their findings to the broader community and make recommendations for future considerations regarding their topic of study.

This unit is part of the larger aforementioned course sequence and specifically focuses on coding data in order to determine conclusions where students will code their data to develop conclusions that are grounded in and supported by the evidence. By the end of this unit, students will be able to examine datasets, determine information, and produce conclusions in an effort to directly address their research questions.

Revision Date: August 2024

Standards

RL.CR.11–12.1. Accurately cite strong and thorough textual evidence and make relevant connections to strongly support a comprehensive analysis of multiple aspects of what a literary text says explicitly and inferentially, as well as interpretations of the text; this may include determining where the text leaves matters uncertain.

RI.CR.11–12.1. Accurately cite a range of thorough textual evidence and make relevant connections to strongly support a comprehensive analysis of multiple aspects of what an informational text says explicitly and inferentially, as well as interpretations of the text.

W.AW.11–12.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

A. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.

C. Use transitions (e.g., words, phrases, clauses) to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.

D. Establish and maintain a style and tone appropriate to the audience and purpose (e.g., formal and objective for academic writing) while attending to the norms and conventions of the discipline in which they are writing.

E. Provide a concluding paragraph or section that supports the argument presented (e.g., articulating implications or the significance of the topic).

RI.CI.11–12.2. Determine two or more central ideas of an informational text and analyze how they are developed and refined over the course of a text, including how they interact and build on one another to provide a complex account or analysis; provide an objective summary of the text.

W.WR.11–12.5. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

W.RW.11–12.7. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes.

W.IW.11–12.2. Write informative/explanatory texts (including the narration of historical events, scientific procedures/ experiments, or technical processes) to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

A. Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

B. Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

C. Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

D. Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.

E. Establish and maintain a style and tone appropriate to the audience and purpose (e.g., formal and objective for academic writing) while attending to the norms and conventions of the discipline in which they are writing.

F. Provide a concluding paragraph or section that supports the argument presented (e.g., articulating

implications or the significance of the topic).

W.WP.11–12.4. Develop and strengthen writing as needed by planning, revising, editing, rewriting, trying a new approach; sustaining effort to complete complex writing tasks; tracking and reflecting on personal writing progress (e.g., using portfolios, journals, conferencing); or consulting a style manual (such as MLA or APA Style), focusing on addressing what is most significant for a specific purpose and audience.

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SL.PE.11–12.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with peers on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

A. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

SL.ES.11–12.3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

9.4.12.CI.1: Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g.,1.1.12prof.CR3a).

9.4.12.CI.2: Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).

9.4.12.CI.3: Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).

9.4.12.TL.2: Generate data using formula-based calculations in a spreadsheet and draw conclusions about the data.

The standards in this unit reflect a developmental progression across grade levels and make interdisciplinary connections across content areas including the humanities, technology, career readiness, cultural awareness, and global citizenship.

Essential Questions / Enduring Understandings

Essential Questions:

- To what extent can data help determine conclusions to research questions?
- What standards need to be met for data to be considered reliable and valid?

Enduring Understandings:

- Coding data and examining multiple facets of demographic data, as well as determining outliers, leads to more reliable and valid data.
- Collecting data and coding data are very different tasks and require one to be as objective as possible to avoid skewing data towards desired or anticipated conclusions.

Objectives

Students will know:

- Effective arguments are supported and unified by carefully chosen and connected claims, reasons, and evidence
- Evidence is used to support the claims and reasoning of an argument. Compelling evidence is sufficient, accurate, relevant, current, and credible to support the conclusion
- Precision in word choice reduces confusion, wordiness, and redundancy.
- Reflection is an ongoing and recursive process in inquiry, often leading to changes in understanding. Strategies for reflection may include journal writing, self-questioning, drawing, exploration of space, and/or guided contemplation.
- The scope and purpose of one’s research and the credibility of sources affects the generalizability and the reliability of the conclusions.
- Inductive reasoning uses specific observations and/or data points to identify trends, make generalizations, and draw conclusions. Deductive reasoning uses broad facts or generalizations to

generate additional, more specific conclusions about a phenomenon.

- Evidence may be used to identify and explain relationships (comparative, causal, or correlational) and/or patterns and trends.
- Qualifiers place limits on how far a claim may be carried. Effective arguments acknowledge these limits, increasing credibility by reducing overgeneralization or oversimplification.

Students will be skilled at:

- Articulating challenges, successes, and moments of insight that occur throughout the inquiry process
- Strategically choosing evidence to effectively support claims
- Evaluating alternate, opposing, or competing perspectives or arguments, by considering their implications and limitations.
- Formulating a well-reasoned argument, taking the complexities of the problem or issue into consideration.
- Reflecting on and revising their own writing, thinking, and creative processes.

Learning Plan

This unit plan includes but is not limited to the following strategies:

Coding Teacher Data: Students will participate in coding data that I have provided them in order to practice the skill. They must come up with two conclusions based on the data I have given.

Peer Review: Weekly peer meetings to discuss what they're working on and help each other through their work.

Roundtable Discussions: Meeting with teacher and peer group to discuss preliminary conclusions that students created to offer constructive feedback and ensure data aligns with conclusions

Assessment

When taking a Social Studies course, students demonstrate differentiated proficiency according to their ability to answer the essential questions through formative and summative assessments. Many of the performance

tasks below can be implemented as formative and/or summative assessments. As teachers strive for students to demonstrate proficiency, they will need to create additional or alternative assessments based on demonstration or absence of skill.

Formative Assessments:

- One to One meetings with teacher, Peer group discussions

Summative Assessments:

- Second Research Method
- Preliminary Conclusions of Coded Data
- Roundtable reports

Benchmark Assessments:

- Student evaluation of student-driven goals (written assessment)

Materials

The design of this course allows for the integration of a variety of instructional, supplemental, and intervention materials that support student learners at all levels in the school and home environments. Associated web content and media sources are infused into the unit as applicable and available In addition to the materials below, the following link connects to district approved textbooks and resources utilized in this course: Core Book List.

The following are approved resources that teachers can include to further unit related objectives:

Coding Data ppt

Preliminary Conclusions Outline

Dataset to Code

Coding Website

Open Source Data Collection

Any additional resources that are not included in this list will be presented to and reviewed by the supervisor before being included in lesson plans. This ensures resources are reviewed and vetted for relevance and appropriateness prior to implementation.

Suggested Modifications

This link includes content specific accommodations and modifications for all populations:

https://docs.google.com/spreadsheets/d/1Pp6EJOCsFz5o4-opzsXpQDQoa6aClW-bkRGPDRHXVrk/edit?usp=sharing

These additional strategies are helpful when learning Social Studies content and skills:

These additional strategies are helpful when learning Social Studies content and skills:

- Highlighter for close reading and annotation strategies
- Bolded terms in directions
- Providing opportunities for text-to-speech for written responses.
- Use visual presentations of all materials to include graphic organizers for writing.