PART 5

DEVELOPING AND COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE

OBJECTIVE: Students draw from their research and personal analysis to develop and communicate an evidence-based perspective. By the end of Part 5, students will have an organized body of research and have written an evidence-based perspective on their Area of Investigation to serve as a basis for a variety of purposes.

ACTIVITIES

MATERIALS:
Research Frame
Organizing EBC
Synthesizing EBC
Evidence-Based Perspective
EBC Criteria Checklist
Connecting Ideas Handout
Research Criteria Matrix

1- REVIEWING RESEARCH PORTFOLIOS

Students review their Research Portfolios based on their revised Research Frames in preparation for final analysis.

2- EXPRESSING AN EVIDENCE-BASED PERSPECTIVE

Based on their claims for each Inquiry Path, students write a final EBC explaining their perspective on the Area of Investigation.

3- WRITING A BIBLIOGRAPHY

Students use their Potential Sources tool to write bibliographies listing all their sources.

4- COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE

Students organize their evidence and research-based claims into a communication plan or product that addresses their purposes for research.

ALIGNMENT TO CCSS

TARGETED STANDARD(S):

W.9-10.2: Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. **W.9-10.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. **W.9-10.5:** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. **W.9-10.7:** 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.9-10.8:** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. **W.9-10.9:** Draw evidence from literary or informational texts to support analysis, reflection, and research. **RI.9-10.7:** Analyze various accounts of a subject told in different mediums, determining which details are emphasized in each account. **RI (Anchor):** Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. **RI.9-10.10:** By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction at the high end of the grades 9–10 text complexity band independently and proficiently.

SUPPORTING STANDARD(S):

RI.9-10.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. **RI.9-10.2:** Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. **RI.9-10.4:** Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone. **RI.9-10.6:** Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.

ACTIVITY 1: REVIEWING RESEARCH PORTFOLIOS

Students review their Research Portfolios based on their revised Research Frames in preparation for final analysis.

INSTRUCTIONAL NOTES

After extending and refining their research, students organize their Research Portfolios in preparation for crafting their evidence-based perspective. Section 2 should be complete, containing all the sources, annotated copies, notes and EBCs made by the students during Parts 2-4. The portfolios should also contain Organizing EBC tools for each Inquiry Path that synthesize information across its Inquiry Questions. The claims addressing at least one of the Inquiry Paths should be written out. The claims addressing these Inquiry Paths become the first part of Section 3 of their portfolios and form the basis of their evidence-based perspective on their Area of Investigation.

ACTIVITY 2: EXPRESSING AN EVIDENCE-BASED PERSPECTIVE

Based on their claims for each Inquiry Path, students write a final EBC explaining their perspective on the Area of Investigation.

EVIDENCE-BASED PERSPECTIVE TOOL

The **EVIDENCE-BASED PERSPECTIVE** is a written expression of the personal conclusions and perspectives drawn by the students from their research. It results from the analysis of the outcomes of the research, organized and supported by the claims they have developed for each of their Inquiry Paths. Drawing from their Organizing EBCs, students write a synthesizing account of their findings, expressing their perspective and supporting it with evidence and reasoning.

INSTRUCTIONAL NOTES

- Have students draw from their Research Portfolios to write roughly a one-page synthesis expressing and supporting their perspective on their Areas of Investigation.
- The Writing EBC and the Connecting Ideas handouts can be used.
- These written perspectives should clearly and logically express their perspective, but do not need to fully summarize all of their research. The purpose of this writing is to develop their perspective based on their research. This perspective can then support the development of larger products by incorporating and explaining their entire body of research.
- Students should paraphrase and quote with proper citation the evidence they do use in crafting their perspectives.
- Students can write their perspectives as an in-class writing assignment for which they have prepared by organizing and finalizing their research portfolios.
- After teacher review, students can revise their writing inside or outside of class.
- Students can store their tools in SECTION 3 of their Research Portfolios: Drawing Conclusions.

ACTIVITY 3: WRITING A BIBLIOGRAPHY

Students use their Potential Sources tool to write bibliographies listing all their sources.

INSTRUCTIONAL NOTES

As part of their evidence-based perspective and to complete their Research Portfolios, students write a one or two page bibliography of all their sources. Students can work from their Potential Sources tools, transferring the relevant information. Teachers should use the bibliographic format they prefer and provide direct instruction for students on formatting their information accordingly.

ACTIVITY 4: COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE

Students organize their evidence and research-based claims into a communication plan or product that addresses their purposes for research.

INSTRUCTIONAL NOTES

The focus of the *Researching to Deepen Understanding* activity sequence has been on just that, deepening each student's understanding of a chosen area of investigation, while also developing and applying the skills of effective inquiry and research: questioning, searching, reading closely, analyzing and recording information, organizing thinking, and generating relevant, research-based claims. At this point, students should have developed a well-supported perspective on their focused topic – a particular way of seeing that topic that has emerged through their inquiry. This perspective, and the understanding it represents, is an important outcome of any good research process. However, research is less meaningful (and potentially less rigorous) if there is no tangible result or product that communicates a student's understanding and perspective. Students and teachers, therefore, should emphasize an intended purpose and an anticipated result or product from the start of their investigation. At this final point in the unit, class activities should then focus on fulfilling students' purposes and generating those anticipated results and products.

Based on the context for the research and its primary purpose(s), any of the following results and products might be generated and evaluated at the end of the unit. For each possible result, the list of options below briefly describes the purpose and result, product, and instructional sequence that a teacher and students might consider. Whichever option is selected, or if another product is intended, teachers are encouraged to use their own best practices for delivering instruction and supporting their students.

ACTIVITY 4: COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE (CONT'D)

INSTRUCTIONAL NOTES

A thesis-driven academic argument, research-based essay, or op/ed piece

Purpose and Result: If the primary purpose for research is to find, organize, and use evidence to build an argument (whether more formal and academic or less formal and utilitarian) then students' research should result in a set of claims that can be seen as premises from which to construct an argument for the research-based position or perspective they have developed.

Product(s): Students will link the claims they have developed and organize the evidence they have gathered into a logical sequence of premises that make a case for their position on their topic. If the product is to be a written argument, then students may move on to *Core Proficiency Unit IV: Building Evidence-Based Arguments*. To prepare for the writing instruction in that unit, students can produce a well-developed plan for their argument, either in outline or diagrammatic form or in product forms that resemble a legal brief or a précis. Students might also engage in a class symposium, in which they outline their argument, and the evidence behind it, in a peer or jury-type review before other students in the class.

Instructional Sequence: Within the unit, students should read and analyze multiple examples of argumentation in their chosen topic area, both to build their understanding of various perspectives and to study how arguments are constructed (or misconstructed). As they complete their research, students will need to study the relationships among their perspective, claims, and evidence to determine a reasoned plan for argumentation. The instructional focus should be on the logical progression of claims, the adequacy of evidence, and the effectiveness of the case they can make for their position. Peer reviews might play a major role in preparing them to write a final argument.

A research-based explanation of a phenomenon, issue, event, process, or device

Purpose and Result: If the primary purpose for research is to deepen students' understanding of how something works, has occurred, is done by experts, or affects our lives, with the intent that that they can explain it in detail, then students should aim their research and thinking at developing a technical, scientific, social, or historical explanation that uses research to help others understand a particular phenomenon, issue, event, process, or device.

Product(s): Students will link the claims they have developed and organize the evidence they have gathered into an explanatory sequence that moves from background information to increasingly sophisticated details and analysis. The result might be a technical paper or manual, or something less formal intended for a general audience (a good model for this kind of writing might be Discovery Learning's *How It Works* web-based explanations), or a historical/social science analysis. In most cases, this will result in a piece of explanatory writing that may be accompanied by visual support, but it could also result in a multi-media presentation or speech.

Instructional Sequence: Within the unit, students should focus on informational sources that will build their understanding of the topic they are investigating and will ultimately need to explain in detail. They should read texts that exemplify how things are analyzed and explained in a particular field (science, social science, technical, the arts, consumer-related, etc.). As they complete their research, they should organize their claims and evidence into an explanatory sequence aimed at a particular audience and purpose. Peer reviews might play a major role in helping them develop explanations that are clear, coherent, and effective.

ACTIVITY 4: COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE (CONT'D)

INSTRUCTIONAL NOTES

An informational presentation incorporating text, graphics and multi-media

Purpose and Result: If the primary purpose for research is to build the student's own understanding (to inform a decision or support personal development), with an eye to sharing that understanding, then students might aim their research at producing an informational presentation that recaptures and presents what they have learned. This could be about a consumer product, a career option, or a topic of personal or community interest.

Product(s): Students will link the claims they have developed and organize the evidence they have gathered into an informational presentation, most likely one that involves the use of multi-media (e.g., a PowerPoint presentation or website). Students should think about how text, graphics, audio and video can be combined to communicate what they have learned, potentially using links to and content from websites they have searched.

Instructional Sequence: Within the unit, students should focus their research on gaining as much information about their topic as possible, think about how others might use that information, and identify good websites, videos, or graphics that they might use to convey what they have learned to others. As they conclude their research, they should learn how to use presentation or web-design tools to organize and communicate what they want to present, and focus on how text can be used sparingly but effectively in conjunction with other ways of communicating information. Peers can be seen as both practice and real audiences for student products and presentations.

A reflective narrative of the process by which they have arrived at deepened understanding

Purpose and Result: If the primary purposes for research are more open-ended, to follow an inquiry path to wherever it may lead, and to learn about the processes of effective research along the way, then students will want to document the "story" of their search and build in reflective points as they progress. The result should be a deepened understanding of both their topic and the experience of inquiry, and an emerging personal heuristic for conducting research that they can apply in future situations.

Product(s): Students will see the claims they have developed and the evidence they have gathered as the products of their search processes, and will focus their thinking and writing on recounting the steps that led to these outcomes and the story of their experiences in the search. This kind of reflective narrative as a research product we first championed by Ken Macrorie, who referred to the product as an "I-search paper," the purpose of which is to document the search as much as to present its results. Students typically use a chronological structure to organize and present their thinking, moving from "What I wanted to learn" to "How I searched and what I found" to "What I ultimately learned," discussing search processes, close readings, evidence gathered, and emerging understandings along the way. For this sort of communication to be most valuable, students should be expected to be reflective about what worked and what didn't, what they would do again and how they would improve their research processes in the future.

ACTIVITY 4: COMMUNICATING AN EVIDENCE-BASED PERSPECTIVE (CONT'D)

INSTRUCTIONAL NOTES

Instructional Sequence: Within the unit, students should concentrate on recording not only what they find but also what they did to find it, tracking their inquiry paths as they bend, branch, and are re-routed. Their claims should be seen as results of their search, and their perspective should be seen as the end point of the research "journey" they have been on. Students can be more open-ended in their search processes, following leads as much as trying to accumulate purposeful information. It is a good idea for them to maintain reflective journals in conjunction with their research journals (where information is recorded), and to also be reflective about their thinking and discoveries as they "make" notes. Peers can be used to help them reflect along the way and as an audience for their developing narrations.

ASSESSMENT OPPORTUNITIES

After students have completed Part 5, teachers are able to assess if students have been able to successfully conclude a cycle of independent research. Many aspects of the proficiency can and should be assessed. The Research Portfolio can be used as evidence for the development of the full range of criteria expressed in the Research Criteria Matrix for all central areas of proficiency:

1. Setting direction for Inquiry and Research
2. Managing and evaluating research processes
3. Gathering and Assessing Sources
4. Analyzing/integrating/synthesizing Information
5. Recording and Organizing Information
6. Developing and Communicating an Evidence-Based Perspective