12.3.1 | Lesson 23

Introduction

In this lesson, students organize, analyze, and synthesize their claims using their Forming Evidence-Based Claims Tools from the previous lesson to develop comprehensive claims about each inquiry path in the research frame. This work directly prepares students to develop and write an Evidence-Based Perspective for the End-of-Unit Assessment (12.3.1 Lesson 27). Students build on the claims created in the previous lesson to develop comprehensive claims that reflect a deeper understanding of the inquiry paths and the problem-based question itself, and begin to develop a perspective on their issue.

Students begin the lesson by organizing the claims they created in the previous lesson, physically arranging the Forming Evidence-Based Claims Tools according to the inquiry paths they address. Students analyze and make connections between these specific claims and the supporting evidence to develop comprehensive claims about each inquiry path. Students use Organizing Evidence-Based Claims Tools to write the comprehensive claims about each inquiry path. Students then work in small groups to peer review one Organizing Evidence-Based Claims Tool using an Evidence-Based Claims Criteria Checklist. Students then synthesize the information from an Organizing Evidence-Based Claims Tool into a paragraph that explains the claim, the evidence that supports it, and how the claim supports a side of an issue from the problem-based question. Student learning is assessed via a Quick Write at the end of the lesson: Develop and explain a claim about an inquiry path or your problem-based question and support the claim using specific evidence and details from your research.

For homework, students review all of their Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise their claims. Additionally, students reflect on their research process completed during the lesson and complete a multimedia journal entry in response to the following prompt: How is your perspective about your problem-based question evolving now that you have synthesized your research?

Standards

Assessed Standard(s)	
W.11-12.7	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.11-12.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
Addressed Standard(s)	
W.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
SL.11-12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 11-12 topics, texts, and issues,* building on others' ideas and expressing their own clearly and persuasively.

Assessment

Assessment(s)

Student learning is assessed via a Quick Write at the end of the lesson. Students respond to the following prompt, using an Organizing Evidence-Based Claims Tool from the lesson.

- Develop and explain a claim about an inquiry path or your problem-based question and support the claim using specific evidence and details from your research.

- Student responses are assessed using the Evidence-Based Claims Criteria Checklist.

High Performance Response(s)

Student responses will vary according to the individual's problem-based question and research. A High Performance Response should:

- Develop and explain a claim about an inquiry path or the problem-based question (e.g., "Developing nations can become more prosperous by providing quality education and technology to all citizens." This claim points to the fact that *quality* education, technology, and equity are all important for developing countries seeking to become more economically prosperous.).

- Provide the most relevant and sufficient evidence from research to support the claim (e.g., Because what is important about education, economically speaking, is the skills one gains, quality education is important so that the workforce experiences high "cognitive development" (p. 29) demonstrated through specific skills, and is, thus, able to be "more productive" (p. ix). "[Quality education] includes experience; practical learning that takes place on the job, as well as, non-traditional technical training regimens that enhance skill development" (p. 3); that is, quality education includes, by definition, on-the-job training that will help develop a skilled workforce that contributes positively to a developing economy. Similarly, technology is important for developing countries because it allows workers to "acquire skills … and develop social networks … facilitating peer-to-peer communities and their integration with the economy" (p. 36). By allowing people to communicate more freely and with greater ease, all people become more active members of an economy. Active communication leads to growth: "[d]eploying broadband networks at the community and municipal levels has become an important factor in allowing local businesses to grow and remain competitive" (p. 38). Communication leads to competition, which is important because it drives innovation and investment, which in turn support a thriving economy.

- The evidence in this model response came from the following model sources:
  - Source #3 "Evidence for Action: Gender Equality and Economic Growth" by John Ward, Bernice Lee, Simon Baptist, and Helen Jackson (http://www.chathamhouse.org/, search terms: Evidence for Action)
  - Source #5 "Human Capital Investment in the Developing World: An Analysis of Praxis" by Adeyemi O. Ogunade
  - Source #7 "2005 EFA Global Monitoring Report. "Education for All: The Quality Imperative" by UNESCO
  - Source #10 "Economic Impacts of Broadband" by Christine Zhen-Wei Qiang and Carlo M. Rossotto with Kaoru Kimura in *Information and Communications for Development 2009: Extending Reach and Increasing Impact* by World Bank Publications (https://openknowledge.worldbank.org/handle/10986/2636)

Vocabulary

Vocabulary to provide directly (will not include extended instruction)
• None.*

Vocabulary to teach (may include direct word work and/or questions)
• None.*

Additional vocabulary to support English Language Learners (to provide directly)
• None.*

*In their research and reading, students encounter domain-specific vocabulary related to their individual areas of investigation/problem-based questions. Consider instructing students to use a vocabulary journal to track this vocabulary when conducting independent searches during class and for homework.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards: • Standards: W.11-12.7, W.11-12.9, W.11-12.4, SL.11-12.1 **Learning Sequence:** 1. Introduction of Lesson Agenda 2. Homework Accountability 3. Comprehensive Claims 4. Assessing Claims Peer Review 5. Quick Write 6. Closing	 1. 5% 2. 10% 3. 40% 4. 25% 5. 15% 6. 5%

Materials

- Student copies of the Forming Evidence-Based Claims Tools (refer to 12.3.1 Lesson 22)
- Copies of the Organizing Evidence-Based Claims Tools for each student (1-point, 2-point, and 3-point)
- Copies of the Evidence-Based Claims Criteria Checklist for each student

Learning Sequence

How to Use the Learning Sequence	
Symbol	**Type of Text & Interpretation of the Symbol**
10%	Percentage indicates the percentage of lesson time each activity should take.
no symbol	Plain text indicates teacher action.
	Bold text indicates questions for the teacher to ask students.
	Italicized text indicates a vocabulary word.
▶	Indicates student action(s).
💬	Indicates possible student response(s) to teacher questions.
ⓘ	Indicates instructional notes for the teacher.

Activity 1: Introduction of Lesson Agenda   5%

Begin by reviewing the agenda and the assessed standards for this lesson: W.11-12.7 and W.11-12.9. Explain that in this lesson, students use the Organizing Evidence-Based Claims Tool to make comprehensive claims about inquiry paths and their problem-based question by identifying connections between the specific claims and evidence from the previous lesson (Forming Evidence-Based Claims Tools). Students then peer-review one Organizing Evidence-Based Claims Tool using the Evidence-Based Claims Criteria Checklist. Finally, students synthesize the information from an Organizing Evidence-Based Claims Tool into a written paragraph. This work directly prepares students to develop and write an evidence-based perspective for the End-of-Unit Assessment in 12.3.1 Lesson 27.

- Students look at the agenda.

Activity 2: Homework Accountability   10%

Instruct students to take out their responses to the previous lesson's homework assignment. (Complete the process of organizing, analyzing, and synthesizing your research, using at least two Forming Evidence-Based Claims Tools to develop claims about all inquiry paths on the research frame.) Instruct students to talk in pairs about the claims they developed.

- Student responses vary according to their individual inquiry paths and claims.

- Consider collecting the homework to assess students' research progress.

Instruct students to arrange all of their evidence-based claims by inquiry path on their desks.

- Students should have at least 6 evidence-based claims, two for each inquiry path.

Activity 3: Comprehensive Claims   40%

Explain that in this activity, students build on the claim-making process they started in the previous lesson by analyzing and synthesizing comprehensive claims about each inquiry path in the research frame. Students use the claims made in the previous lesson as a foundation to analyze and develop comprehensive claims about each inquiry path.

- Students listen.

Provide students with the following definition: *comprehensive* means "of large scope, covering or involving much, inclusive." Explain that in this lesson, students combine the claims made in the previous lesson to create claims with a larger scope for each inquiry path. Explain that these new claims are more global and include multiple pieces of evidence.

- Explain to students that synthesizing multiple pieces of evidence to develop comprehensive claims allows students to create stronger claims because they are demonstrating that the claim is supported by sufficient evidence. These comprehensive claims provide a foundation for the evidence-based perspective in the End-of-Unit Assessment (12.3.1 Lesson 27). In addition, developing comprehensive claims across multiple sources is necessary for writing the central and supporting claims of the research-based argument paper in 12.3.2.

- At this point, students are making claims about their research. They will not begin to develop central claims until 12.3.2 Lesson 1. For the 12.3.1 End-of-Unit Assessment (12.3.1 Lesson 27), there are no central claims. Students just explain their developing perspective about the problem-based question.

- Students listen.

Distribute a blank Organizing Evidence-Based Claims Tool to each student. Display the model research frame for students to see. Instruct students to examine the research frame and read the questions for inquiry paths 1 and 2: "How does education increase a developing nation's economic prosperity?" and "How does technology play a role in a developing nation's economic prosperity?"

- Some students might use a 2- or 3- Point tool depending on how many claims they made about each inquiry path in the previous lesson. For example, if students completed three Forming Evidence-Based Claims Tools for one inquiry path, they should use a 3-Point tool to connect the three claims into one comprehensive claim about the inquiry path. Remind

students that they may need to return to their sources if additional evidence is necessary to support the comprehensive claim.

- The model research frame was introduced in 12.3.1 Lesson 19.
  - Students examine the Organizing Evidence-Based Claims Tool and read the questions for inquiry paths 1 and 2 on the Model Research Frame.

Explain to students that in the previous lesson, the class developed the following model claim about these inquiry paths.

- Education quality is determined by multiple factors, both inside and outside the classroom, including but not limited to cognitive development, skill development, and equity.

- Provide students with the other model claim from the second Forming Evidence-Based Claims Tool in 12.3.1 Lesson 22: Various forms of technology spur economic growth across all levels of society. Broadband stimulates communication and access to information, and laborsaving technology improves quality of life and saves time.
  - Students listen.

- The Model Forming Evidence-Based Claims Tools used in this part of the lesson are located in 12.3.1 Lesson 22.

Explain that in this activity, students analyze and make connections between the claims they made about their inquiry questions. Then they organize, analyze, and make connections between the Forming Evidence-Based Claims Tools completed for each inquiry path to create a comprehensive claim on an Organizing Evidence-Based Claims Tool.

- Students listen.

Display the Model Organizing Evidence-Based Claims Tool based on the model inquiry paths discussed above ("How does education increase a developing nation's economic prosperity?" and "How does technology play a role in a developing nation's economic prosperity?"). Explain to students that they can make a larger claim by connecting these two claims. Point out to students that this larger claim emerges from a combination of claims from two different inquiry paths (1 and 2). Direct students to the model claim in the Claim section of the tool: "Developing nations can become more prosperous by providing quality education and technology to all citizens."

- The 2-point Model Organizing Evidence-Based Claims Tool is used as an exemplar in this lesson.
  - Students follow along.

Instruct students to use an Organizing Evidence-Based Claims Tool to develop a comprehensive claim about each inquiry path on their research frame. They should use the 6 evidence-based claims they completed in the previous lesson. Remind students they have completed at least two of these tools for each inquiry path.

- Students use their Organizing Evidence-Based Claims Tools to form comprehensive claims about each inquiry path.

- **Differentiation Consideration:** Some students may be able to use an Organizing Evidence-Based Claims Tool to complete a comprehensive claim about the problem-based question as well as the inquiry paths.

Activity 4: Assessing Claims Peer Review   **25%**

Explain that in this activity, students assess one of their claims using the Evidence-Based Claims Criteria Checklist. Display and distribute the Evidence-Based Claims Criteria Checklist to all students.

- Students examine the Evidence-Based Claims Criteria Checklist.

Explain to students that the Evidence-Based Claims Criteria Checklist should be used to assess the Model Organizing Evidence-Based Claims Tool. Read through each criterion in the "Content and Analysis section," check the boxes that apply, and write model comments. Explain and model the following:

- I am checking the first box for the "Content and Analysis" section, Clarity of the Claim. I am checking the box because the claim is clearly stated and understandable.
- I am checking the second box for the "Content and Analysis" section, Conformity to the Text, because I created the claim directly from the textual evidence and ideas I read about education and technology and their effects on developing nations' economies.
- I am checking the third box for the "Content and Analysis" section, Understanding of the Topic, because my claim demonstrates sound thinking about both the issue of economic development and the problem-based question. The idea is not abstract and there is evidence to support it.

- Students follow along.

- **Differentiation Consideration:** Consider pointing out to students that the word *conformity* means "agreement"; the claim agrees with and is based upon the text, as indicated by the phrase "directly based upon" in the checklist.

- **Differentiation Consideration:** Consider providing students with the definition of *clarity*: "the state of being clear or transparent."

Instruct students to assess the Model Organizing Evidence-Based Claims Tool for the next three sections of the Checklist: "Command of Evidence," "Coherence and Organization," and "Thoroughness and Objectivity." Remind students to explain their thinking. Write students' thoughts on the Evidence-Based Claims Criteria Checklist that is displayed.

- Students assess the Model Organizing Evidence-Based Claims Tool as a whole class, using the next three sections of the Evidence-Based Claims Criteria Checklist as a guide.

- Student responses may include:

  - **Command of evidence**: The claim has specific evidence supporting it, as demonstrated by the text quotes on the tool itself. Each piece of evidence can be used to directly support the claim. For example, broadband Internet helps people "acquire skills … and develop social networks … facilitating peer-to-peer communities and their integration with the economy," which supports the claim about technology spurring economic growth.

  - **Coherence and organization**: The specific points on the tool group the evidence; the evidence is easy to understand and follows a logical pattern, directly supporting each point and laying a clear foundation for the claim itself.

  - **Thoroughness and objectivity**: There are 8 quotes, and each quote aims to support the overall claim and presents the perspective of the problem-based question. For example, there are diverse quotes on how technology contributes to a developing economy, including examples of broadband connection and laborsaving technologies.

- **Differentiation Consideration:** If students struggle with responses for "Thoroughness and objectivity," consider providing the following definitions: *thoroughness* means "complete; attentive to detail and accuracy" and *objectivity* means "the state or quality of not being influenced by personal feelings or prejudice." The term *objective tone* will be defined in the next unit, 12.3.2, when students learn how to write objectively about research.

Instruct students to transition into small groups.

Explain to students that their discussions should continue the work of collaborative discussion outlined in SL.11-12.1, to which students were previously introduced. Remind students that these discussion strategies have been taught in previous modules.

Instruct students to provide one Organizing Evidence-Based Claims Tool to a peer in the small group to review using the Evidence-Based Claims Criteria Checklist. Each student should have one tool to review.

- Students exchange Organizing Evidence-Based Claims Tools with a peer within their group and review them using the Evidence-Based Claims Criteria Checklist.

Direct students to return the tool they reviewed to their peer once the review is complete.

Activity 5: Quick Write   15%

Instruct students to respond briefly in writing to the following prompt:

Develop and explain a claim about an inquiry path or your problem-based question and support the claim using specific evidence and details from your research.

Instruct students to develop their written response from the Organizing Evidence-Based Claims Tools. Remind students to use the Evidence-Based Claims Criteria Checklist to guide their written responses. Remind students to practice the skills outlined in W.11-12.4, to which they were introduced in Module 12.1.

- If necessary, consider reviewing the components of W.11-12.4, which include producing clear, coherent writing that employs organization and style appropriate to the task, purpose, and audience.
  - Students listen and read the Quick Write prompt.
- Display the prompt for students to see, or provide the prompt in hard copy.

Transition to the independent Quick Write.

- Students independently answer the prompt using the Organizing Evidence-Based Claims Tools and the Evidence-Based Claims Criteria Checklist to guide their responses.
- See the High Performance Response at the beginning of this lesson.

Activity 6: Closing   5%

Display and distribute the homework assignment. For homework, instruct students to review all of their Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise their claims.

Additionally, instruct students to reflect on their research process completed during the lesson and complete a multimedia journal entry in response to the following prompt:

How is your perspective about your problem-based question evolving now that you have synthesized your research?

- Remind students that revising their Organizing Evidence-Based Claims Tools might require an additional round of research and analysis of both their annotated sources and their notes to find the most relevant and useful evidence possible.

- **Differentiation Consideration:** Consider reminding students that a *perspective* is how someone understands an issue, including his/her relationship to, and analysis of, the issue.

- **Differentiation Consideration**: Consider instructing students to use the Student Research Plan Handout to guide their multimedia journal entries if necessary. The Student Research Plan Handout was distributed in 12.3.1 Lesson 15.

  - Students follow along.

Homework

Review all of your Organizing Evidence-Based Claims Tools using the Evidence-Based Claims Criteria Checklist and, if necessary, revise your claims.

Additionally, reflect on your research process completed during the lesson and complete a multimedia journal entry in response to the following prompt:

How is your perspective about your problem-based question evolving now that you have synthesized your research?

Name ....   Inquiry Path ....

CLAIM:		
A Supporting Evidence	**B** Supporting Evidence	**C** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)
D Supporting Evidence	**E** Supporting Evidence	**F** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)

ODELL EDUCATION   **ORGANIZING EVIDENCE-BASED CLAIMS**

PUBLIC CONSULTING GROUP   engage^{ny} Our Students. Their Moment.

Name .... Inquiry Path ....

CLAIM: ....

Point 1		Point 2	
A Supporting Evidence	**B** Supporting Evidence	**A** Supporting Evidence	**B** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)
C Supporting Evidence	**D** Supporting Evidence	**C** Supporting Evidence	**D** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)	(Reference:)

ODELL EDUCATION (cc) BY-NC-SA **ORGANIZING EVIDENCE-BASED CLAIMS**

Name .... Inquiry Path ....

CLAIM: ....

Point 1	Point 2	Point 3
A Supporting Evidence	**A** Supporting Evidence	**A** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)
B Supporting Evidence	**B** Supporting Evidence	**B** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)
C Supporting Evidence	**C** Supporting Evidence	**C** Supporting Evidence
(Reference:)	(Reference:)	(Reference:)

ODELL EDUCATION   [CC BY-NC-SA]   **ORGANIZING EVIDENCE-BASED CLAIMS**

PUBLIC CONSULTING GROUP   engage^{ny} Our Students. Their Moment.

Name Model   Inquiry Path 1 and 2

CLAIM: Developing nations can become more prosperous by providing quality education and technology to all citizens.

Point 1 Education quality is determined by multiple factors, both inside and outside the classroom, including but not limited to cognitive development, skill development, and equity.

Point 2 Various forms of technology spur economic growth across all levels of society. Broadband stimulates communication and access to information, and labor-saving technology improves quality of life and saves time.

A Supporting Evidence	B Supporting Evidence	A Supporting Evidence	B Supporting Evidence
"The quantity of children who participate is by definition a secondary consideration: merely filling spaces called 'schools' with children would not address even quantitative objectives if no real education occurred."	"[T]wo principal objectives are at stake: the first is to ensure the cognitive development of learners."	Broadband Internet helps people "acquire skills … and develop social networks … facilitating peer-to-peer communities and their integration with the economy."	In India, some farming villages are "using a common portal that links multimedia personal computers by satellite … [and] these improvements have resulted in productivity gains for the farmers."
(Reference:7, p. 28-29)	(Reference:7, Foreword)	(Reference:10, p. 36)	(Reference:10, p. 6)
C Supporting Evidence	D Supporting Evidence	C Supporting Evidence	D Supporting Evidence
"[Informal education] includes experience; practical learning that takes place on the job, as well as, non-traditional technical training regimens that enhance skill development."	"A more productive workforce, through greater equality in employment and education, increases expected rates of return, which in turn generates a modest increase investment and promotes growth."	Countries can "improve . . . quality of life by investing in labour-saving technology."	"[D]eploying broadband networks at the community and municipal levels has become an important factor in allowing local businesses to grow and remain competitive."
(Reference:5, p. 3)	(Reference:3, p. ix)	(Reference:3, p. 3)	(Reference:10, p. 38)

ODELL EDUCATION   **ORGANIZING EVIDENCE-BASED CLAIMS**

EVIDENCE-BASED CLAIMS CRITERIA CHECKLIST		✓	COMMENTS
I. CONTENT AND ANALYSIS *An EBC is a clearly stated inference that arises from reading texts closely.*	**Clarity of the Claim:** States a conclusion that you have come to after reading and that you want others to think about.	☐	
	Conformity to the Text: Is based upon and linked to the ideas and details you have read.	☐	
	Understanding of the Topic: Demonstrates knowledge of and sound thinking about a text or topic that matters to you and others.	☐	
II. COMMAND OF EVIDENCE *An EBC is supported by specific textual evidence and developed through valid reasoning.*	**Reasoning :** All parts of the claim are supported by specific evidence you can point to in the text(s).	☐	
	Use and Integration of Evidence: Uses direct quotations and examples from the text(s) to explain and prove its conclusion.	☐	
	Thoroughness and Objectivity: Is explained thoroughly and distinguishes your claim from other possible positions.	☐	
III. COHERENCE AND ORGANIZATION *An EBC and its support are coherently organized into a unified explanation.*	**Relationship to Context:** States where your claim is coming from and why you think it is important.	☐	
	Relationships among Parts: Groups and presents supporting evidence in a clear way that helps others understand your claim.	☐	
	Relationship to Other Claims: Can be linked with other claims to make an argument.	☐	
IV. CONTROL OF LANGUAGE AND CONVENTIONS *An EBC is communicated clearly and precisely, with responsible use/ citation of supporting evidence.*	**Clarity of Communication:** Is clearly and precisely stated, so that others understand your thinking.	☐	
	Responsible Use of Evidence: Quotes from the text accurately.	☐	

ODELL
EDUCATION

PUBLIC CONSULTING GROUP

engage^{ny}
Our Students. Their Moment.