

## 9.3.3

## Lesson 8

## Introduction

In this lesson, the End-of-Unit Assessment, students work in class to finalize their research papers, editing, polishing, and rewriting as necessary. Students are evaluated on the final draft's alignment to the criteria of **Research Paper Writing Rubric: Informative/Explanatory**. The final draft should demonstrate thoughtful analysis of the evidence gathered through research as well as the organizational structure of the chosen research paper. For homework, students should prepare for the Module Performance Assessment.

## Standards

Assessed Standard(s)	
W.9-10.2.a-f	<p>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.</p> <p>a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.</p> <p>b. Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.</p> <p>c. Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.</p> <p>d. Use precise language and domain-specific vocabulary to manage the complexity of the topic.</p> <p>e. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.</p> <p>f. Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).</p>
Addressed Standard(s)	
W.9-10.4	Produce clear and coherent writing in which the development, organization, and style

	are appropriate to task, purpose, and audience.
W.9-10.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.

## Assessment

Assessment(s)
<ul style="list-style-type: none"> <li>Students are assessed on the final draft's alignment to the criteria of an informative/explanatory text (W.9-10.2). The final draft should examine and convey complex ideas and clearly incorporate their evidence-based claims as well as appropriately citing sources. The final draft should demonstrate thoughtful analysis of the evidence gathered through research as well as the organizational structure of the chosen research paper.</li> </ul> <p>① This assessment is evaluated using the <a href="#">Research Paper Writing Rubric: Informative/Explanatory</a> (located in the 9.3 Unit 3 Rubric and Checklist Packet).</p>
High Performance Response(s)
<p>A high performance response may include the following:</p> <ul style="list-style-type: none"> <li>See attached sample student research paper.</li> </ul>

## Vocabulary

Vocabulary to provide directly (will not include extended instruction)
<ul style="list-style-type: none"> <li>None.*</li> </ul>
Vocabulary to teach (may include direct word work and/or questions)
<ul style="list-style-type: none"> <li>None.*</li> </ul>

\* Students will encounter domain-specific vocabulary related to their individual research question/problem by reading, annotating, and recording notes on various sources. Students will track some of this vocabulary in their Vocabulary Journal when conducting independent searches during class and for homework.

## Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
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<b>Standards &amp; Text:</b> <ul style="list-style-type: none"> <li>Standards: W.9-10.2.a-f, W.9-10.4, W.9-10.9</li> <li>Text: None.</li> </ul>	
<b>Learning Sequence:</b>	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. End-of-Unit Assessment: Final Draft	3. 80%
4. Closing	4. 5%

## Materials

- Student Copies of the **9.3.3 Rubric and Checklist Packet**
- Copies of the **End-of-Unit Assessment** for each student
- Copies of the **Research Paper** 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.
	<b>Bold text indicates text dependent questions.</b>
	<i>Italicized text indicates a vocabulary word.</i>
►	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 introducing the lesson agenda and assessed standard in this lesson: W.9-10.2.a-f. Inform students that today they are completing their final draft of their research paper to be evaluated for the End-of-Unit Assessment. Instruct students to work independently and hand in the final product at the end of class.

- Students listen.

## Activity 2: Homework Accountability

**10%**

Ask student volunteers to briefly share one or two grammatical edits they made for homework and to explain their decisions by referencing the checklists aligned to W.9-10.2.d and L.9-10.2 in their 9.3.3 Rubric and Checklist Packet.

- ① Students may have grammatical questions, which, if time allows, can be addressed during Homework Accountability.

Ask student volunteers to also share two items from the list they created, detailing any evidence that would be effective to use in a multimedia format.

💬 Possible student responses might resemble:

- One area I thought would benefit from multimedia is the portion in my essay where I discuss monkeys and students taking the same test. Because there are so many numbers, a visual graph of this might help many people understand the point more clearly.

## Activity 3: End-of-Unit Assessment: Final Draft

**80%**

Instruct students that they should spend the remaining portion of the class completing the final draft of their research paper. Inform them that they can use their Research Portfolios, all checklists and rubrics used in this unit, and previous versions of their research paper with peer comments to guide their creation of the final draft. Advise students they should use this time to edit, polish, and/or rewrite as they see fit, using all the skills they have learned over the course of this unit. Students should also finalize their works cited and format their paper according to MLA standards. Remind them to hand in their paper at the end of class and that their final draft is evaluated on its alignment to the conventions of an informative/explanatory text. It is assessed using the Research Paper Writing Rubric: Informative/Explanatory, including reference to citations as well as proof that the evidence-based perspective has developed from research and is supported by sufficient evidence.

- ▶ Students listen and begin finalizing their research papers.

## Activity 6: Closing

**5%**

Display and distribute the homework assignment. For homework, instruct students to prepare for the module performance task by reviewing their research paper and identifying evidence and claims that would be enhanced by forms of multimedia.

- ▶ Students follow along.

## Homework

Prepare for the Module Performance Assessment by reviewing your research paper and identifying evidence and claims that would be enhanced by forms of multimedia. Capture these pieces of evidence and claims in a list to be used during the module performance task.

## End-of-Unit Assessment (9.3.3 Lesson 8)

### Final Research Paper

**Your Task:** Rely on the evidence you have gathered to write the final draft of your research paper. Use the evidence-based perspective developed from your research and supported by textual evidence in crafting your final paper. Use your Research Portfolios, checklists and rubrics, and previous versions of your research paper with peer comments to guide the creation of your final draft.

Your writing will be assessed using the Research Paper Writing Rubric: Informative/Explanatory.

#### Guidelines

##### Be sure to:

- Review your writing for alignment with all parts of W.9-10.2
- Make clear, evidence-based claims about your research topic
- Paraphrase, quote, and reference relevant evidence to support your claim(s)
- Organize your ideas in a cohesive and coherent manner
- Use precise language appropriate for your task
- Follow the conventions of standard written English
- Correctly cite all evidence, finalize your bibliography and format the paper according to MLA standards

**CCLS:** W.9-10.2(a-f)

#### Commentary on the Task:

This task measures W.9-10.2 because it demands that students:

- 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.
  - Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
  - Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
  - Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
  - Use precise language and domain-specific vocabulary to manage the complexity of the topic.

Sample Student

Sample Teacher

Sample Class

Sample Date

### **Us or Them: Research on Animal Intelligence**

Plenty of people say their pets are intelligent, emotional creatures. Some people might even argue that their dog is smarter than their neighbor. But how smart are animals really? Over the centuries, people have offered many ways of thinking about animal cognition—that is, the mental capacities of animals. In the 17<sup>th</sup> Century, René Descartes claimed that animals do not think at all, and that is why they are not able to speak, (Wasserman and Castro). Recently, though, many researchers have begun to observe extraordinary signs of intelligence in dolphins, chimps, dogs, and even parrots—from following instructions and using tools, to being able to speak and do math. But while some animals may show signs of intelligence, a remaining question is: How does animal intelligence compare to human intelligence? That is to say, while we think that humans are smarter, how much smarter are we, exactly? The question still has no clear answer; it depends on how we measure intelligence, and whether or not it is fair (or even possible) to compare us to them.

The ancient Greeks thought that there was a ladder of intelligence, with all life forms ranking from low to high, and humans were the closest things to angels on earth, (Waal). From then until somewhat recently, many scientists and philosophers followed this idea in one way or another, claiming

that animals had no souls, and that they could potentially “learn,” but not “think” or “feel,” (Waal). Most people who made these claims did not try so hard to discover signs of animal cognition, and would often test the animals in ways that were appropriate for human subjects, but not for the animals themselves.

Many people would say this is unfair. For example, what if someone held a book up to a dolphin and asked the dolphin to read it aloud? Even if a researcher spent years trying to teach a dolphin to read aloud, he will never be able to do it. When the dolphin inevitably fails this task, is it fair to assume it is because he is unintelligent? Perhaps it is more correct to say that dolphins do not have the physical ability to read text aloud than it is to claim that they cannot do it because they are unintelligent. Dolphins do not have the correct vocal chords or jaw structure to read aloud. Similarly, one could never teach a dolphin to have a thumb. Would a dolphin be considered unintelligent if it could not hold a hammer?

Thus, modern researchers claim that language is not the only sign of intelligence. Sometimes, very bright animals do not express their intelligence in ways that we can immediately see or notice. For example, a recent study of 59 chimpanzees concluded that the animals “fake laugh” in response to others’ laughter. According to Horowitz and Shea, “The researchers discovered that when one chimp laughed others sometimes engaged in ‘laugh replications’ that lacked the full acoustic structure of spontaneous laughter. In other words, they were fake-laughing.” This behavior exhibits chimps’ social etiquette. It is spontaneous and untaught, but humans would not notice it right away.

Sometimes animals possess an intelligence that we must uncover. A recent study by researchers at Duke University revealed something about rhesus macaque monkeys: They can “mentally represent



and compare numbers,” as well as do simple math problems, (Duke). “We know that animals can recognize quantities, but there is less evidence for their ability to carry out explicit mathematical tasks, such as addition,” said graduate student Jessica Cantlon. “Our study shows that they can,” (Duke). The monkeys were offered a “variable number of dots” on a touch screen. The dots disappeared, and a new screen appeared with two boxes, one with the sum of the first two sets of dots and one with a different number. When the monkeys tapped the box with the sum of the first two sets, they were rewarded with food. The same test was given to a group of college students. While the college students got the answer correct more often (94% vs. 76%), both they and the monkeys responded at the same rate. Similarly, both groups’ number of correct answers declined equally when the two sets of numbers were close together (e.g., 11 and 12), (Duke). This study proves that the monkeys already had this ability, and were simply using it in ways we did not notice; we only had to construct the right test for them to show us this intelligence.

Finally, consider Alex the parrot. Animal scientist Irene Pepperberg spent 30 years teaching Alex, an African gray parrot, to speak, (Morell). At first Alex would simply reproduce noises, but Irene also taught him the *meaning* of those sounds using simple patterns, like counting from one to ten. Eventually, Alex could differentiate between shapes and colors, and even communicated desires like, “Want grape,” or “Wanna go tree,” (Morell). Pepperberg still works with a number of other parrots to teach them similar skills.

All of these examples prove that animals are often more intelligent than we can see at first. But there is still an unanswered question: How do they compare to humans? One answer is that animals, while often smarter than we think, are not nearly as smart as us. It would not take the average human 30 years to learn to count to seven or learn to say, “Want grape.” By the same token, animals seem to

have no interest in studying humans, but our desire to know about them highlights our superior intelligence. But there is another possibility: What if we are only measuring the intelligence we humans can see? What if there is something brilliant going on that we have not learned to measure and analyze? We have learned to teach parrots English, and perhaps it is only a matter of time before we begin to learn some complex language of the animal kingdom previously unknown to us.

### Works Cited

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