

9.3.3

Lesson 6

Introduction

In this lesson, students continue to refine and revise their research papers. The instruction in this lesson focuses on editing for flow and the cohesiveness of the entire research paper. Students continue to provide peer feedback as well as conference with the teacher. Students use a peer feedback rubric and checklist to guide their peer review and make revisions to their research papers. At the end of the lesson, students are assessed on their revisions for overall flow and cohesiveness, using the W.9-10.2.c portion of the **Research Paper Writing Rubric: Informative/Explanatory**. For homework, students revise their introductions and conclusions.

Standards

Assessed Standard(s)	
W.9-10.2.c	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. 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.
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. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10 on page 55.)
Addressed Standard(s)	
W.9-10.2.a, f	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. 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. 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).

SL.9-10.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on <i>grades 9–10 topics, texts, and issues</i> , building on others' ideas and expressing their own clearly and persuasively.
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Assessment

Assessment(s)
<p>The learning in this lesson will be captured through student revisions based on peer and teacher feedback of the overall cohesiveness and flow of their research paper.</p> <p>① This assessment will be evaluated using the W.9-10.2.c portion of the Research Paper Writing Rubric: Informative/Explanatory (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> <p>Pre-Revision:</p> <p>Are the different colors correct? Are the correct words/sentences highlighted?</p> <p>Modern researchers claim that language is not the only sign of intelligence. A recent study of 59 chimpanzees concluded that the animals “fake laugh” in response to others’ laughter. Sometimes, very bright animals do not express their intelligence in ways that we can immediately see or notice. This behavior exhibits chimps’ social etiquette. According to Horowitz and Shae, “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.”</p> <p>Rhesus macaque monkeys: They can “mentally represent and compare numbers,” as well as do simple math problems (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. Both groups’ number of correct answers declined equally when the two sets of numbers were close together (e.g., 11 and 12), (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).</p> <p>Post-Revision:</p> <p>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</p>

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.

Vocabulary

Vocabulary to provide directly (will not include extended instruction)

- flow (n.) – in written work, flow is a logical, smooth progression of words and ideas
- climactic (adj.) – consisting of a series of related ideas so arranged that each surpasses the preceding in force or intensity
- chronological (adj.) – arranged in the order of time

Vocabulary to teach (may include direct word work and/or questions)

- None.*

*Students should be using their Vocabulary Journal to incorporate domain-specific vocabulary from Unit 9.3.2 into their research paper, as well as to record process-oriented vocabulary defined in the lesson.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards & Text: <ul style="list-style-type: none"> Standards: W.9-10.2.c, W.9-10.5, W.9-10.2.a, f, SL.9-10.1 Text: Sources from research 	
Learning Sequence: <ol style="list-style-type: none"> Introduction of Lesson Agenda Homework Accountability Flow and Cohesiveness of the Research Paper Peer Review and Teacher Conference Revision and Lesson Assessment Closing 	<ol style="list-style-type: none"> 5% 15% 20% 35% 20% 5%

Materials

- Student copies of the **9.3 Core Curriculum Learning Standards Tool** (refer to 9.3.1 Lesson 1)
- Student copies of the **9.3.3 Rubric and Checklist Packet**

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 text dependent questions. (In other lessons it says '...indicates questions for the teacher to ask students.' Which is correct?
	<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 agenda and assessed standards for this lesson: W9-10.2.c and W.9-10.5. Inform students that in this lesson, they are focusing on revising for cohesiveness and flow for the entire research paper.

- ▶ Students look at the agenda.

Ask students to read standard W.9-10.2.a, c, and f on their Common Core Learning Standards Tool. Inform students that these three sub-standards are the focus for the editing in this lesson, although only W.9-10.2.c will be assessed. Ask students to assess their familiarity with and mastery of these sub-standards.

- ▶ Students assess their familiarity with and mastery of W.9-10.2.a, c, and f.

Activity 2: Homework Accountability

15%

Ask students to briefly Turn-and-Talk in pairs and discuss the revisions to their research paper based on the feedback for formal style, objective tone, and topic development in the previous lesson. Ask students to use the W.9-10.2.b, e checklists from the previous lesson to guide their discussion.

- ▶ Students Turn-and-Talk in pairs and discuss the revisions they completed for homework.

Activity 3: Flow and Cohesiveness of the Research Paper

20%

Inform students that they will be reviewing and expanding on the process of cohesion and *flow* of a paper. Explain to students in written work, *flow* is: “a logical, smooth progression of words and ideas to clearly communicate and support a central claim or idea.” Remind students they have already learned about writing logically and using transitional words to aid cohesion. In this lesson they will be looking at their entire paper for cohesion as well as consistency between the introduction and conclusion. Explain to students that it is possible to use transitional words and phrases correctly, especially between paragraphs, but still not have a paper that flows well.

- ▶ Students listen.

① Remind students to record the definition of *flow* in their Vocabulary Journals.

Display the following example of one paragraph leading into another paragraph for students:

- Example: “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.

Furthermore, 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).

- ▶ Students follow along and read the example.

Ask students:

What transitional word is being used in this example?

- 💬 The word “furthermore.”

Explain to students that even though these two paragraphs are linked by a transitional word, the ideas are not flowing together. It is important that a paper’s ideas flow together and that the cohesion goes beyond just inputting appropriate words that link paragraphs together. This can be achieved by reiterating a small portion of the idea expressed in the previous paragraph as a way of introducing and leading into the next paragraph. This is an example of a transitional phrase. Explain to students that transitional phrases help sub-claims work together and connect within the paper. It is important for the overall cohesion of the paper that these sub-claims strongly connect to support the central claim of the paper. Display the revised example for students:

- Revised: “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).

- ▶ Students follow along and read the example.

- ① **Differentiation Consideration:** Consider providing students with more examples of effective cohesion from the pre-revision and post-revision in the High Performance Response in this lesson. For example, ending a paragraph with: *“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) doesn’t provide a logical and cohesive flow into the following paragraph. The following example qualifies the ideas in this paragraph and provides a cohesive transition: 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.

Explain to students that along with transitional phrases, they should also ensure they have a logical sequence of claims. The organizational sequence they developed on their outline may have changed, but students should make sure that their claims are logically ordered. Inform students the principle of organization may vary depending on the content of their research paper. One type of organizational structure is *climactic* order, which builds so the strongest claim comes at the end to support the central claim. Another type of organizational structure is *chronological* order, which orders the information based on time.

► Students follow along.

- ① Remind students that they have done this thinking when they developed their outline and ordered their claims in a logical sequence.
- ① Remind students to record the definitions of *climactic* and *chronological* in their Vocabulary Journals.
- ① **Differentiation Consideration:** If students are struggling with the concepts of *climactic* and *chronological* order, consider reviewing the sample research paper in this unit as a strong example of *climactic* order.

Explain to students that another aspect of cohesion and *flow* is making certain the introduction and conclusion fit well together. Remind students that they have learned the structure of an introduction as well as a conclusion in previous lessons in this unit. When they are reviewing, students should ensure that the central claim is present in both the introduction and conclusion. Students should ensure the introduction is interesting and engaging, and the conclusion opens out at the end to offer a new way of thinking.

► Students follow along.

Activity 4: Peer Review and Teacher Conference

35%

Inform students that they will continue to peer review as well as conference with the teacher. Review the individual assigned times to meet with students to provide feedback for their research paper. Then, instruct students to form pairs to continue peer review. Ask students to refer to the W.9-10.2.c checklist in the 9.3.3 Rubric and Checklist Packet to guide their peer review.

- ① Suggest to students that an effective strategy for review is to read a paper aloud as it will help highlight any areas that may not flow very well.

- ① Inform students that in this lesson, students will continue the work of collaborative discussion outlined in SL.9-10.1 to which they were previously introduced. Remind students these discussion strategies have been taught in previous modules. Consider reminding students of the skills inherent in the sub-standards of Standard SL.9-10.1, to which students were previously introduced.
 - ▶ Students continue the peer review of their partner's body paragraphs as well as conference with the teacher.

Instruct students who are scheduled to conference with the teacher to individually meet at their assigned time. Remind students that this is a continuation of teacher conferencing from the previous lesson.

- ▶ Students who are scheduled for a teacher conference meet with the teacher to discuss their research paper.
- ① Depending on class size, this could be a chance to continue peer review from the previous lesson or give the teacher a chance to meet with students a second time. Consider having students form pairs for review or meeting in their pre-established research teams.

Activity 5: Revision and Lesson Assessment

20%

Ask students to independently revise their drafts by focusing on the entire paper and using the W.9-10.2.c checklist from the Research Paper Writing Rubric: Informative/Explanatory. Students will be assessed on their consistency of a flow and cohesiveness throughout their draft.

- ① The conventions established in previous modules, as well as in Lesson 4, will be used to evaluate students in this lesson. The established protocols for a hard-copy writing, editing, and drafting process should be implemented. Otherwise instruct students to use track changes on a digital version of their research paper.
 - ▶ Students independently revise their drafts based on peer and teacher feedback.

Activity 6: Closing

5%

Display and distribute the homework assignment. For homework, instruct students to continue to revise their drafts based on feedback on the cohesion and consistency of their introduction and conclusion. Refer students to the W.9-10.2.a, f checklists in the 9.3.3 Rubric and Checklist Packet to guide their revisions and review. Ask students to come to class prepared to discuss the revisions to the introduction and conclusion.

- ▶ Students follow along.

Homework

Revise your introductions and conclusions based on feedback on the cohesion and consistency of your introduction and conclusion. Refer to the W.9-10.2.a, f checklists to guide your revisions. Be prepared to discuss your revisions in the following lesson.