

Lesson plan for Expository Writing Science and genes: Day 6

Context

This lesson was written for Day 6 of a 12 day unit on science and genes. The unit is organized around 6 different articles that discuss the effectiveness, implications and ethical issues of DNA science and its application to our bodies. The unit is the last unit of the course and culminates with the students writing a argumentative synthesis essay based on the these readings. In previous classes, the students were given the [essay assignment](#), and have already identified a topic and identified supporting ideas from the articles. See the [syllabus](#) for more information on the class.

Materials

“Designer Babies” by Sharon Begley
www.geneticsandsociety.org/article.php?id=128

Length of class: 1 hour and 30 minutes

Lesson overview and rationale

This lesson begins with the teacher collecting the students' assigned homework, a 100-200 word journal entry, and then facilitates a class discussion of the assigned reading, “Designer Babies”. Like all the articles from the reader, this article is challenging for these students, and even if they read it carefully, most will have only a rudimentary understanding. When discussing specific passages from the text, I project the text on the overhead screen, so that students (and teacher) can support their interpretations and analysis of the essay by directly pointing to the text. The purpose of the discussion is to improve their understanding of the article through supporting them in analyzing both the author's argument and also analyzing up close some key passages of the text.

The next part of the lesson focuses on concise writing. The teacher introduces them to some strategies for making their writing more concise. Students then apply these strategies by revising sentences in a teacher made handout of passages that were pulled from previous student essays.

Then the rest of the lesson supports the students in preparing for the argumentative synthesis essay assignment, and more specifically in crafting their thesis statements. - something the students had difficult with in their last assigned essay. Students review the key components of a thesis statement. Then they evaluate the thesis statements in a teacher made handout of 5-7 intro paragraphs that were taken from the students' last assigned essay (some effective, some not). One of their homework assignments will be to write an introductory paragraph for their argumentative synthesis essay with a strong thesis statement.

This lesson illustrates 2 key approaches I took in this class. The first was in supporting the students in analyzing the readings and reaching a deeper understanding through guided analysis and discussion in class which focused closely on the text. The second approach was incorporating student writing into the class as much as possible, both to model good writing, but also to support the students in evaluating, critiquing and revising their writing.

Lesson objectives

- Students will analyze more fully the assigned reading for the class.
- Students will learn how to apply strategies for making their writing more concise.
- Students will become more proficient at evaluating and critiquing thesis statements.

Lesson sequence

Teacher collects student journal entries on previous day's homework assignment

1. Students read “Designer Babies” for their homework.
2. Students wrote a 100-200 word journal entry for their homework on the following prompt: *Explain (and cite the page numbers) at least two of the ethical issues that Begley discusses around germline therapy.*

Review of important vocabulary and idioms in “Designer Babies”

1. Introduce vocabulary: in vitro fertilization clinic (115), germline (116), Pandora’s box (116), informed consent (117), end run around (117), monkey with (117), society’s haves and have-nots (117)
2. Students in pairs examine words in context and present their understanding

Class discussion of “Designer Babies”

In pairs and then as a whole class, students discuss the following

- Identify the ethical issues that Begley discusses around germline therapy.
- What are some of the advantages of germline therapy (Examine closely the 2nd paragraph on p. 117 and 1st paragraph on p. 118)
- In the imagined example at the beginning of the essay, what problem is the couple trying to avoid? What solution are they carrying out?
- What point is the author making when she says “Genetic engineers are preparing to cross what has long been an ethical Rubicon (116).”
- What new controversial issues emerge in this essay that are absent in the other 2 articles you have already read?
- Begley writes that ‘There is a great divide in the bioethics community over whether we should be opening up this Pandora’s box (116).’ Explain in your own words what the 2 sides of this controversy are.

Concise writing

1. Students review a teacher-made handout on strategies for making writing more concise.
2. In pairs students are then given a handout with some example sentences from drawn student essays and they revise them so that they are more concise.
3. As a whole class, students share and critique their revised sentences by writing them on the board.
4. Remaining passages get assigned as homework.

Reviewing thesis statements and intros

1. Students review the suggested organization of the synthesis essay, and specifically the intro paragraph.
2. Elicit from students the components of a strong thesis: *Concise, specific, and*

takes a position

Student peer evaluation of intro paragraphs

Students evaluate 5 introductory paragraphs written by students in the class from their last assigned essay, a summary critique. They evaluate it according to the following directions:

1. Underline the thesis of each intro.
2. Give the thesis one of the following evaluations
 - Complete: Thesis is concisely written, specific and takes a position
 - Unclear: Thesis is not clearly or concisely written.
 - General: Thesis is not specific or narrowly defined.
 - No opinion: Thesis does not take a position.

HW

1. Write a draft of an introduction for the argumentative synthesis and bring a hard copy to class. Before writing the intro, review both the argumentative synthesis assignment and also the rubric to review the expectations about the intro. Ensure that your thesis is 1) specific, 2) states a position and 3) is concisely written.
2. Finish revising the sentences of the conciseness handout