

Taste the local difference regional food movement of northern Michigan versus the industrial agriculture model of California

Finlayson, Kerri, North Central Michigan College, Freshmen and Sophomore level at a community college, a 3 hour class period.

Introduction: Students will examine the recent drought in California and its connection to the national food system in California as well as the Taste the Local Difference Regional Food Movement in the greater northern Michigan area to evaluate the pros and cons of these two types of food systems (national and regional).

Geographic Connections:

D2.Geo.10.9-12. Evaluate how changes in the environmental and cultural characteristics of a place or region influence spatial patterns of trade and land use.

D2.Geo.5.9-12. Evaluate how political and economic decisions throughout time have influenced cultural and environmental characteristics of various places and regions.

Vocabulary: Industrial agriculture, mono-agriculture, sustainable agriculture, regional agriculture, surface water, underground aquifers, California Central Valley, Greater northern Michigan area, Resilience, food security and food insecurity, Farm bill, agricultural subsidies, subsidized commodity crop, ethanol, high fructose corn syrup, adaptation, mitigation, agribusiness, portfolio diversity, Federal quotas and the New Deal, Taste the local Difference

Content Standards:

CCSS.ELA-LITERACY.RH.11-12.1

Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.

CCSS.ELA-LITERACY.RH.11-12.9

Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

Essential (Compelling) Question: In today's ever-changing climate, which food system (industrial agriculture or a regional food system) is best designed to mitigate the impacts of climate change on food security?

Literacy through the Content Area: Students may use several comprehension monitoring strategies:

- **Identify where the difficulty occurs**

"I don't understand the second paragraph on page 76."

- **Identify what the difficulty is**

"I don't get what the author means when she says, 'Arriving in America was a milestone in my grandmother's life.'"

- **Restate the difficult sentence or passage in their own words**

"Oh, so the author means that coming to America was a very important event in her grandmother's life."

- **Look back through the text**

"The author talked about Mr. McBride in Chapter 2, but I don't remember much about him. Maybe if I reread that chapter, I can figure out why he's acting this way now."

- **Look forward in the text for information that might help them to resolve the difficulty**

"The text says, 'The groundwater may form a stream or pond or create a wetland. People can also bring groundwater to the surface.' Hmm, I don't understand how people can do that... Oh, the next section is called 'Wells.' I'll read this section to see if it tells how they do it."

Source: <http://www.readingrockets.org/article/seven-strategies-teach-students-text-comprehension>

Placement of Lesson within Broader Curriculum/Context: This lesson falls within the middle of the course "Introduction to Sustainable Living." The unit on Food is half-way through the textbook. The student learning that takes place during this unit may impact the way I organize subsequent instruction by starting with an essential and compelling question and then proceeding to answer it during class time.

Learner Background: In general, the students don't have much prior knowledge about industrial agriculture, regional food systems or where their food really comes from. I can do a pre-assessment to test out this hypothesis; however, from years past, this has been the situation.

Objectives for Lesson:

- Students will be able to define the vocabulary words listed as a part of this unit
- Students will be able to list the agricultural products that they buy from California versus the greater northern Michigan area.
- Students will be able to articulate the pros and cons of industrial agriculture vs. regional agricultural systems
- Students will be able to formulate a substantiated opinion on the merits of each food system

Integration of 21st century skills: Students will use technology to access 4 websites with subsequent articles as well as 2 short videos. Students will have an interactive learning experience talking with their classmates in class as well as visiting an example of a regional food system. They will engage in analysis, synthesis and evaluation of the 2 types of food systems. Lastly, they will get practice in communicating effectively with their classmates and the instructor during the in-class discussion.

Assessment: I will assign a 2-5 minute paper at the end of the class period as a formative assessment. Specifically, I will measure these two outcomes identified above: Students will be able to articulate the pros and cons of industrial agriculture vs. regional agricultural systems. Students will be able to formulate a substantiated opinion on the merits of each food system.

I will use a dimensional scale where I evaluate their written responses as beginning, developing or advanced. Attached is the form.

Materials/Resources: I will use the following websites and/or articles:

- 1) <http://thinkprogress.org/climate/2015/05/05/3646965/california-drought-and-agriculture-explainer/>
- 2) <http://thinkprogress.org/climate/2015/07/17/3681786/speaker-boehner-blames-california-drought-obama/>
- 3) http://player.theplatform.com/p/7wvmTC/MSNBCEmbeddedOffSite?guid=n_hayes_ffl_eischli_150715#
- 4) <http://www.localdifference.org/>
- 5) <http://www.groundworkcenter.org/>
- 6) https://www.ted.com/talks/birke_baehr_what_s_wrong_with_our_food_system?language=en#t-292460
- 7) <https://www.youtube.com/watch?v=7TRI7yeeYQQ&app=desktop>

Lesson Development/Instructional Strategies

I will prep the students by telling them what they need to read and do before class. The out of class time will take approximately 2.5-3.5 hours and the in-class portion will take approximately 2 hours. Students will be reading, analyzing, discussion and writing about industrial agriculture and regional agriculture. This curriculum module will foster literacy, reading comprehension, video comprehension, interpersonal and intrapersonal speaking and writing skills.

- 1) Outside of class have students read the following articles on their own: (1.5 hours)
<http://thinkprogress.org/climate/2015/05/05/3646965/california-drought-and-agriculture-explainer/>--“California’s drought could upend America’s entire food system”
<http://thinkprogress.org/climate/2015/07/17/3681786/speaker-boehner-blames-california-drought-obama/>--“Boehner blames California drought on Obama.”
See attachment titled “Questions for the first two articles assigned on Think Progress.org”—have students answer these questions before class.
- 2) Next, have students visit the following website: <http://www.localdifference.org/>
Once the website is opened, click on ABOUT TLD (located at the upper left-hand area of the screen) and read it. Then click on “Find Food and Farms” (located right next to About TLD). Once there, click on Farms.” List 3 farms near where you live plus their main products. Feel free to click on details of each farm. Next, click on “About Local Food” which is a tab located next to “Find Food and Farms.” Scroll to the bottom of the

page and click on get it fresh. Find at least 5 products that you love to eat and list them on a piece of paper. Summarize on the same piece of paper (or on a word document) the goal of “taste the local difference” and the benefits and costs. (45 minutes-1 hr)

- 3) Now, visit the following website: groundworkcenter.org. Once the website is open click on About—a tab located in the upper left-hand area of the screen. Read the whole page. Define the following terms on a word document and come to class with it printed out or accessible: diversified economy, economic resilience, list the core goals of this organization, list their core values. Next, under “News and Views” (the tab right next to projects), click on “Ag Forum” and read the article “Is Local Food just a trend?” by Tricia Phelps. Write a paragraph response to her article. In other words, do you agree or disagree? (45 minutes to 1 hour)
- 4) Next is a classroom based discussion. It is suggested to pair students up with 2-3 others and first discuss the vocabulary terms and their responses to the questions from the two articles they read from Think Progress.org. Then, the instructor will assess student learning by asking a few vocabulary terms as well as a few of the assigned questions to the groups. This will probably engage a different and perhaps deeper level of conversation. If the instructor sees confusion, he/she will clear up any misunderstandings. (45 minutes-1 hour)
- 5) Then, the instructor will direct students to discuss the regional farm system in northern Michigan, via the “Taste the Local Difference and “Groundwork: Center for Resilient Communities” organization. Encourage them to have a general discussion on what these organizations hope to accomplish and how they are taking action steps to do so. (20 minutes)
- 6) Next, as a class, watch the following videos:
https://www.ted.com/talks/birke_baehr_what_s_wrong_with_our_food_system?language=en#t-292460

<https://www.youtube.com/watch?v=7TRI7yeeYQQ&app=desktop>

As a classroom, the instructor leads the discussion by asking the following questions or coming up with ones of their own: What is 11-year-old Birke Baehr’s main argument? What data does he use to support it? (15 minutes)

In the second video on the differences between industrial versus sustainable agriculture, please answer the following questions: 1) How does the speaker define sustainable agriculture? 2) What are the main differences she outlines between industrial and sustainable agriculture, 3) how do you evaluate her argument that we don’t necessarily need industrial agriculture to feed the world? 4) What tactics do big agricultural companies use to convince their audience that big ag is the way to go? The instructor

will call on individual students to get their opinions and then move on to the final task.
(15 minutes)

- 7) At the end of class, ask students to write for 5 minutes about which system they see as being the most efficient mitigation strategy of climate change effects on U.S. agriculture. The instructor will collect these and read them on his/her own time and share the results when the class meets next. (5-10 minutes)

Students Needing Differentiated Instruction:

The instructor will pay close attention to the in-class discussions by visiting different groups and listening to their conversation. If there is a student that is struggling, the instructor will provide one on one instruction. If there are students that clearly need more challenge, I will have them brainstorm a local application to the problem of industrial agriculture. In other words, I will have them come up with an alternative solution/idea to industrial agriculture and/or regional agriculture.