Using Image Analysis to Build Reading Comprehension

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Abstract

Content area reading remains a primary concern of history educators. In order to better prepare students for encounters with text, the authors propose the use of two image analysis strategies tied with a historical theme to heighten student interest in historical content and provide a basis for improved reading comprehension.

As the September sun beat relentlessly on the roof of the portable classroom and the air conditioner hummed diligently, twenty-one sixth grade world cultures students participated in a review session pertaining to ancient Greece. Using the computer and projector to situate students geographically, the teacher guided the students through basic definitions of Greek landforms. The teacher then turned to the topic of civilizations and asked a recall question: What were the names of the two earliest Greek civilizations? A young girl raised her hand confidently and exclaimed, "Dark Ages!" The teacher responded gently, "No-ooo. Think of civilizations. What is a civilization?" The student shot back defensively, "Well, it was up there" as she pointed vaguely to the white board.

She was correct. "Dark Ages" had been written on the board during a previous lesson, and, in a way, her answer made sense. The teacher had asked for two civilizations; "Dark Ages" consisted of two words. When the class had read about the early Greek civilizations and the Dark Ages, the words, as proper nouns, had been capitalized. Why should "Minoans and Mycenaeans" have more meaning than "Dark Ages" to students who have difficulties placing ideas in context? Researchers have noted that many readers approach a text as a vehicle for answers, not as a rhetorical and human artifact (Wineburg 2001, 65). Oftentimes, beyond general reading difficulties in decoding and fluency, struggling readers lack an epistemology of text.

In this essay, we propose the use of image analysis strategies to heighten student interest in historical content and provide a basis for improved reading comprehension. We draw upon our experiences working with sixth grade students who struggled with reading. Specifically, the students had scored in the 50th percentile or below on the reading portion of the state assessment test and, as a result, had been tracked into this particular social studies class. Throughout the first semester, we noted that their workbooks and other supplementary materials provided by the district were of limited help in building students' reading skills. As we moved chronologically through a study of world cultures, we occasionally used images (maps and paintings) as part of our teaching strategies. In the second semester, however, we decided to apply a more interactive, discipline-based approach to engage students in the content of history and build historical thinking skills. When teaching a unit on Europe in the Middle Ages (specifically the Frankish Kingdom), we used two methods of image analysis tied to a historical theme in order to weave context and therefore better prepare students for encounters with reading text. We found the image analysis strategies beneficial. Students' attitudes toward class changed and their understanding of content improved.

In the following essay, we provide a brief overview of Sam Wineburg's research pertaining to reading comprehension in history. Then we describe the theme we used to organize the lessons, the historical thinking skills we sought to build, and the two methods of image analysis we recommend – the people/space/time model and the similarities/differences model. Finally, we make suggestions regarding assessment activities that could be tied to the use of these models.

Reading History

When we think about the process of reading, we often first focus on phonetic decoding, fluency, vocabulary, and comprehension. History educators know that general reading skills are not enough. In his seminal work, *Historical Thinking and Other Unnatural Acts: Charting the Future of Teaching the Past*, Sam Wineburg called attention to the paucity of research pertaining to reading in the discipline of history. Wineburg's research focused on identifying cognitive processes that expert and novice readers in history (primarily historians and advanced high school students) utilize when they encounter both primary and secondary sources. Wineburg's focus on discipline-specific thinking skills brought new meaning to "reading comprehension" as he examined expert readers' use of discipline-specific heuristics. The sourcing heuristic, as identified by Wineburg, involves "the practice of reading the source of the document before reading the actual text." Historians engaged in the sourcing heuristic 98% of the time in Wineburg's

study, while students utilized sourcing only 31% of the time. The use or lack of use of sourcing reveals a great deal about the ways in which different readers think about texts (76).

A simile comparing historians and students to actors in a courtroom illustrates Wineburg's point regarding the use of heuristics, or problem solving techniques, as they read primary and secondary sources. Historians approached the sources as prosecuting attorneys. Not only did they listen to testimony, but they actively drew it from the documents by placing sources side by side, questioning conscious and unconscious motives, and locating discrepancies. By contrast, students behaved as jurors. They listened to testimony and questioned themselves about the information, but they did not engage in direct questioning of the witnesses (documents) or attempt to use cross-examination. Students' locus of authority resided in the text. Historians' authoritative site rested in the questions they formulated about the text (77).

In addition, according to Wineburg, skilled readers of history focus on what texts say *and* on what texts *do*. They consider the purposes words serve, the perspective provided by the descriptions, and the organization of accounts. Instead of relying mainly on the literal text or even the inferred text, skilled readers of history comprehend the subtext that exists in a document. Most skilled readers of history (even if they lack factual knowledge) follow a similar approach when examining a document. Through an examination of the text as a rhetorical artifact and as a human artifact, skilled history readers reconstruct authors' intentions and goals while working to disclose information about the author's world view and beliefs. The literal text serves only as a shell of the more complete text understood by historians. A total comprehension of the text requires an understanding of intention, motive, purpose and plan (64-67).

Skilled readers of history also have distinguished themselves from general readers through an epistemology of text. For example, historians recognize immediately the existence of subtexts, begin to question the authors' intentions, and situate the texts in the social world. Unskilled readers of history, on the other hand, look to texts as bearers of information. These readers gather information and process what they read, but they fail to engage with the text. The skilled historians and the unskilled readers of history apparently possess different beliefs about the nature of historical inquiry. According to Wineburg, these simple differences in the epistemology of text have an impact on the entire process of historical thinking and their reading comprehension – or the lack thereof (75-79).

In order to move students toward the skillful reading of history (as appropriate for them cognitively) that Wineburg outlined, we identified a specific theme to organize our unit and specific historical thinking skills we wanted our students to utilize. We then engaged them in an analysis of images in order to weave context and prepare them to eventually build an epistemology of text when reading.

Thematic Organization and Historical Thinking Skills
We selected one of the six Vital Themes and Narratives suggested by the National Council for History Education (NCHE) to guide the content direction of this particular unit. According to NCHE, the content taught in the context of the theme, "Civilization, Cultural Diffusion, and Innovation," should address the ways in which human skills have evolved, how and why centers of power develop, and how cultural achievements of major civilizations have developed specifically in the arts, literature, and thought (Bradley Commission on History in Schools 2005, 10).

When planning the lessons on the Frankish Kingdom, we determined that emphasizing three larger historical thinking skills would best help our students organize content in order to improve their reading comprehension. We derived these historical thinking skills from Chapter 2 in the United States' *National Standards for History*. Under chronological thinking, we focused on Standard D, measuring and calculating calendar time. We noted that the labels "BC" and "AD" did not hold much meaning for students, and we also wanted students to be able to gain perspective regarding what it meant to live during the Middle Ages. Under historical comprehension, we focused on Standard F, appreciating historical perspectives. Specifically, we wanted students to consider the values and ideas that existed during the Middle Ages and to avoid judging the past in terms of present-day norms. Under historical analysis and interpretation, we emphasized Standard C, analyzing cause and effect relationships. We stressed multiple causation, the role of the individual, and the influence of ideas, human interests, and beliefs (National Center for History in the Schools 1996, 59-72). We selected these particular historical thinking skills because they were appropriate for the specific content regarding the rise of the Merovingians and Carolingians and because we sought to build a foundation from which students can draw in the future when encountering images and written texts in the study of history.

Since students had previously been introduced to the idea of using a theme to tie together the content in lessons, we began this particular unit with a review of key ideas in the theme and the ways in which these ideas related to content we had studied earlier regarding the medieval Catholic Church. We then began image analysis.

Image Analysis: People/Space/Time and Similarities/Differences For the purposes of this essay, we will focus on the image analysis we implemented in two lessons in this three week unit. In actuality, we utilized at least eight images formally in lessons. In keeping with the idea that image analysis would contribute to students' ability to weave context, make meaning of text, and consider in at least a rudimentary fashion the epistemology of text, we interspersed image analysis lessons with lessons that focused more on reading text and lessons that included role playing. In the examples we will discuss for this unit on Medieval Europe, we used the People/Space/Time model to teach about the rise of Charles Martel, and we utilized the Similarities/Differences model to focus on the achievements of Charlemagne.

People/Space/Time

The People/Space/Time model is designed to engage students in an immediate and deep examination of an image in the context of disciplinary thinking in geography and history. Rather than beginning with such broad questions as, "What is the main idea?" and "What is happening here?" the People/Space/Time model enables students to begin geographically with the present day (questions 1 and 2 below) and then calls on students to think historically about specific time periods in the past (questions 3, 4, and 5 below). Questions 6, 7, and 8 below are intended to give life to the individual depicted in the image and to allow students to display their creativity and application of previously learned ideas (Drake and Nelson 2005, 180-182). Another purpose of the People/Space/Time model of image analysis is to determine what students already know and how sophisticated they are in their understanding of human location in different periods of time. We designed the following questions for the image analysis of Charles Martel.

1) Was this person living north or south of the Mediterranean Sea? (history, geography)
2) Speculate three present day cities where he might have lived. (geography, history, sociology, economics)
3) Was this person alive before or after World War II? History – time)
4) Was this person alive before or after the American Civil War? (history – time)
5) What century might he have lived in? How do you know? (history – time)
6) What do you think this person did for a job? (history, sociology, economics, geography)
7) Write down three adjectives you would use to describe him. (history, sociology, economics, geography)
8) What title would you give this picture?

Using the questions listed above to have students analyze this image engaged them in chronological thinking, historical comprehension, and historical analysis and interpretation. And, it was interdisciplinary.

To further engage students, we encouraged them to consider what themes they saw being communicated through the image. We then asked them to consider the ways in which the themes the students identified related to the theme of "Civilization, Cultural Diffusion, and Innovation" that we had been using. Next, we asked students to consider when this image might have been created and for what purposes. When we turned to reading text about Charles Martel and the significance of his accomplishments at the Battle of Tours in 732, the students were better able to place this historical figure in the context of the time period and draw upon a deeper understanding that they had previously worked together to construct. Several students recalled the depiction of Charles Martel, "the hammer," as a fierce warrior. They carried this image into the reading and were able to articulate the ways in which this Mayor of the Palace capitalized on such technological innovations as the stirrup. When we turned to interpreting the importance of the Battle of Tours, students mentioned "That guy, 'the hammer,'" as they considered the larger meaning of Martel's victory over the Muslims in 732.

Similarities/Differences

In the next lesson, we continued with the process of image analysis in order to further weave context for students. This second encounter with structured image analysis utilized a Similarities/Differences model. We used an official photograph of the then-President George W. Bush and a portrait of Charlemagne painted by AlbrechtDürer centuries after Charlemagne's death. When using this model, the possibility exists to ask students to write down three characteristics that are similar and three characteristics that are different when looking at the two images (Drake and Nelson 2005, 183-184). We believed, however, that it would be advantageous with our group of learners to be more

structured. Therefore, we designed questions that would provide specific points of focus to get the students started. We asked the following questions.

1) What is each leader wearing?
2) Describe each person's hair style.
3) What symbols do you see in the background?
4) What do these pictures tell you about the time period these people lived? What is similar and what is different?

From these initial questions, we then asked the students to relate the conclusions they drew about qualities valued in a leader to the theme of Civilization, Cultural Diffusion, and Innovation. Then we turned to questions about the purposes in each of the images and the ideas the images might be trying to convey. When we read a special section of the textbook highlighting Charlemagne's accomplishments regarding education and religion including the impact of the school he established at Aachen and his appointment of Alcuin as a teacher, we returned to the image of Charlemagne to look for symbolic elements that reinforced or challenged our understanding of his leadership qualities.

The questions we developed for these lessons are purposefully specific to the images we selected and the historical thinking skills we sought to build, but the main ideas in the People/Space/Time and Similarities/Differences models can be adapted to many images used in the history classroom. The overall structure of both models provides a basis that teachers can use to build students' skills in both geography and history while at the same time weaving context to prepare students for encounters with making meaning of text.

Assessing Students

We found that the introduction of images prior to engaging students in reading textual sources improved students' willingness to engage in a closer reading of textual sources and to participate in alternative assessments. We were successful in building on students' enthusiasm by asking them to engage in such short writing activities as composing poems as individuals living during the time period and describing life on a medieval manor. For a more formal assessment (keeping in mind that these students were considered to be struggling academically), we asked students to use their knowledge from the image analysis activities to read a section from their textbook pertaining to achievements in the Middle Ages and then to write a paragraph about the Middle Ages by using the vital theme of Civilization, Cultural Diffusion, and Innovation as a guide. In order to assist students, we recommended a topic sentence for their paragraph and suggested they follow an outline similar to the example we provide below.

Topic Sentence: The Frankish civilization had many innovations and spread culture in Western Europe.

1. Write a sentence describing Charles Martel and explaining his use of a technological innovation.
2. Write a sentence describing Charlemagne and providing examples of his ideas about education and learning.
3. Write a concluding sentence that summarizes the importance of the Franks and their use of innovations and spreading of culture during the Middle Ages.

We reminded the students to consider the images we had studied in class as they consulted the textual reading in preparation for writing their paragraph. In reviewing the images, we also brought students' attention to the values and ideas that existed in the Middle Ages, the role of individuals and the influence that specific ideas had, and the importance of examining the past from the perspective of the people who lived during the time period instead of using modern values and beliefs. We specifically emphasized these historical thinking skills as we prepared students for the writing assessment in order to focus their attention on utilizing the habits of mind we had striven to build throughout the unit.

Students struggled with writing their paragraphs. Our students had little experience writing, especially in content areas, and the task posed difficulties even though they had been provided with a very specific outline. As we worked with individuals, we did notice a dramatic difference in students' attitudes and their thinking practices. In contrast to our previous observations when they had mined the textbook to find answers to questions, this time our students (with guidance from us) referred to the images we had used in class to help them organize the ideas about which they were to write. The final paragraphs the students turned in were not perfect, but the approach they took to their work was significant. Instead of searching the text for an "answer," they consulted the reading and the image and compared what they had learned from both sources in order to construct their understanding of the Middle Ages. The images seemed to have provided them with a basis of comprehension that enabled them to begin to make meaning from the text.

We believe that the structured approach to image analysis outlined above can and should be adapted to multiple lessons in social studies for elementary, middle, and even high school students. First, discipline-specific thinking skills can be consciously taught based on the structure of the questions the teacher designs for image analysis. The questions do not need to be "fancy," but they do need to consider the content knowledge and the discipline-specific skills the teacher wants to build in students. Once the content and habits of mind are established, this "way of thinking" about reading can be applied to reading text. Second, images – even controversial images, as long as they are age-appropriate – provide excellent opportunities for all students to become involved in the social studies classroom. One does not have to be proficient at phonics or have good cadence and fluency in order to "read" an image aloud with classmates. Third, reading images is fun. Students generally like to see pictures from other times and places, and the analysis of images builds not only historical thinking skills and context, but a historical imagination.

We do not offer image analysis as the great panacea for improving students' reading comprehension. But, we do know that students' dispositions changed in class during the time we spent studying the Middle Ages through images, and such student comments as, "Are we gonna get to use those pictures again today?" made image analysis a teaching method we will use in the future.

References

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