Achievement and Innovation in the Middle Ages:
Students Compare Civilizations

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Porcelain bottle from the 13th-14th century, Yuan dynasty, Southeast China. (Freer Gallery of Art).

The computer game Civilization III allows the player to choose from among some of the great civilizations of the past, such as Roman, Aztec, or Babylonian. In a similar way, we divide seven medieval civilizations (Aztec, China, Europe, Inca, Islam/Arabian Peninsula, Japan and West Africa) between seven student teams. Each team studies one civilization's social and technical accomplishments, gives a presentation to the rest of the class about what they have found, and then debates the question of which civilization gave rise to the most important achievements and innovations during the Middle Ages. Students seem to find this the most competitive and exciting unit of study in our seventh grade social studies curriculum.

Days 1-2: Problems and Solutions
To begin the unit, we ask students to name some of the problems they have in their own lives. These difficulties usually involve friends or boredom, which is typical for twelve year olds. Then we present a version of Maslow's Hierarchy of Needs (**See page 16**).[1] Students recognize that most of their basic physical and safety needs are taken care of pretty well. They are mostly aware of problems and struggles in the area of social needs as well as desires for the future, like getting good test scores and becoming better athletes.
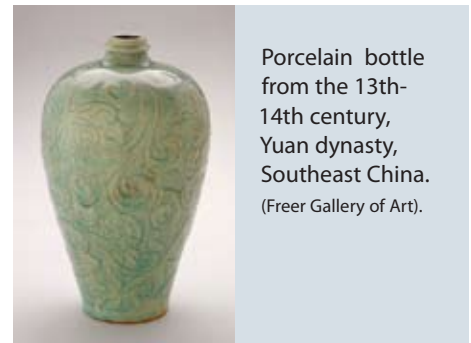
Once we have a good sample of student problems, I ask students to think about possible solutions. Students come up with interesting ideas about studying harder, joining a school club, practicing basketball more often, and so forth. I then move students toward thinking about the Middle Ages by asking them what types of problems people in medieval civilizations might have had. At this point in the year, students have already learned a little about world geography and history, so they mention things like lack of drinking water in much of the Arabic Middle East, hurricanes crashing into the Japanese coast, and hostile militias threatening European villages after the fall of the Roman Empire.

I then ask them to open their books to search for some of the solutions and innovations created during medieval times to deal with various problems, both physical and social. Our school district uses the textbook *History Alive! The Medieval World and Beyond*, which describes seven major civilizations of the Middle Ages and provides details about each one's technical and social innovations.[2]

For example, students read about the West African *griots* (itinerant storytellers, who are often also musicians and oral historians), whose spoken proverbs taught history and morals to the younger generation. Students "backward think" to the original problem for which this social innovation was created. In this case, the stories told by the *griot* answered society's need to pass on information. West Africa had no written language at the time.

Days 3-4: Relevance Today
For the next few days, I ask students to extend their thinking into the present, to inquiring about whether ideas and innovations born in the Middle Ages actually affect human life today. The *History Alive!* textbook provides some useful examples of this sort of connection: The idea of limiting a ruler's power, as stated in the Magna Carta, is further developed in the U.S. Constitution. Students also make informed guesses based on various sources of information. They see similarities of form between an Incan suspension bridge made of vines and suspension bridges made of steel today in San Francisco and New York. The Incas cultivated 200 varieties of potatoes, and some of these are the progenitors of the variety used in a favorite side dish—what we call French fries.

Days 5-8: Comparing Civilizations
Up to this point, each group has studied only one civilization in detail. I now ask each group to present its civilization's solutions and innovations to the whole class. I tell students to be alert for achievements—arising from any society—that have had the greatest impact on our modern civilization. Each group creates a paragraph and a picture for each solution that they present. I instruct the audience to take notes during these presentations, and I provide motivation for doing so—when they are done, students will debate which civilization has had the greatest impact on our modern society.

These debates became especially fiery when students began to compare accomplishments with one another. Some examples:

"West Africa's call and response led to hip hop and we all listen to hip hop. None of us listen to Incan pan pipes or seashell horns."

"Islam's hospitals were the best because Islamic pharmacists would use drugs to dull patients' pain, like when a doctor gave me aspirin after

I crashed on my skateboard. If I had been in a European hospital [four centuries ago] they probably would have stuck a leech on me."

"Europe's habeas corpus would have assured me of having a fair trial with evidence and witnesses. In West Africa I might have had a "trial by wood" where I would have to drink water poured over bitter tasting wood. If I vomited, I'm guilty."

During the debates, the student groups refused to give an inch, each one claiming, "Our civilization was the greatest," even after the debates ended. Students then asked who I thought was the greatest, hoping that they would hear a final word and decision. I refused to answer and instead asked them to activate their imaginations to sort it all out—and to be sure to show up for the next class.

Day 9: Bidding and Debating

On this day, I tell the teams that they are changing roles. They no longer represent an ancient civilization, but rather a new civilization that no one has ever heard of. This new civilization has to build its culture and technology up from the ground; that is, from a blank slate.

Each group gets a chance to bid on the achievements we have been learning about, and each will end up with three. Those will be the main "bricks" that the group can use (hypothetically) to build an imaginary civilization.

I give each team one million "civilization dollars" to bid on items in a mock auction. Student artwork and paragraphs created for the presentations now represent the items up

for bid. The bidding is loud and raucous, as fellow team members squabble over whether to bid more money on, say, China's gunpowder or Islam's public hospitals. This year saw $900,000.00 as the winning bid for the latter. The most successful "new civilization" managed to bag hospitals, habeas corpus, and trephination (Incan brain surgery).

At the end, we display the winning amounts of all bids to indicate which civilization's medieval achievements are most highly prized (**TABLE 1**) by this class. This year, while Europe's innovations faired well in the bidding, it's Islam's accomplishments that receive the most money.

Day 10: Assessment

For the final assessment of this unit of study, each student writes a five-paragraph essay about the innovations that his or her team won in the auction. Rather than being an onerous task, explaining their reasoning for what their group won in the auction is something students seem eager to do.

"So, without Islam's invention of book making we wouldn't be able to sit down and enjoy a fantastic book."

"Muslims adapted and improved the game [of chess, which] spread all over [the Middle East] and [was] introduced to Europe. Now these days chess is enjoyed all over the world."

"Martial arts was one of the important solutions Japan had. During bat-

tle, when a samurai gets his sword broken and has nothing else to use, he would do martial arts. Martial arts are important for Samurai's because it was their backup plan ... "

Conclusion

We really enjoy teaching our students thematically, rather than one civilization at a time. Thematic teaching allows students to get a broader picture of what was happening all over the world during a given period. Later in the year, when we study the concept of social hierarchy, students can see similarities between civilizations in terms of who held power, how rulers wielded power, and how they justified their actions and status in society. When innovations of governance like the Magna Carta, parliamentary representation, and trial by jury come onto the scene, students can see why they were revolutionary ideas "in the course of human events."

Students are always impressed with the advancements first seen in the Arabian Peninsula and China, and are usually appalled by European ideas of healthcare and sanitation during medieval times. Later in the course, we see Europe becoming a center of social innovation and scientific advancement during the Enlightenment. This observation leads to interesting questions for discussion, such as "What is it that allows a civilization to become a source of creativity and innovation?"

Notes

1. Psychologist Abraham Maslow (1908–1970) developed a theory of personality that has influenced a number of different fields, including education. In the levels of the five basic needs, a person does not feel the second need until the demands of the first have been satisfied, nor the third until the second has been satisfied, and so on. Social institutions (family, business, government) help to answer these needs of the individual, which are summarized in on page 16. See "Maslow's Hierarchy of Needs," honolulu. hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/maslow. htm.

2. Wendy Frey, *History Alive! The Medieval World and Beyond* (Palo Alto, CA: TCI, Teachers' Curriculum Institute, 2004).

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Table 1. Students' Ranking of Achievements and Innovations

1. Public Hospitals (Islam/Arab)
2. Gunpowder (China)
3. Pharmacies (Islam/Arab)
4. *Habeas Corpus* (Europe)
5. Magna Carta (Europe)
6. Martial Arts (Japan)
7. Algebra (Islam/Arab)
8. Book Making (Islam/Arab)
9. Calendar (Aztec)
10. Bronze Sculpture (West Africa)