Motivating Students in a Year Long PBL Experience

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MOTIVATION

Student motivation and sustained interest in a subject are issues for all teachers. Many teachers incorporate high interest activities into their lesson in order to "hook" students into learning the material. At some point assignments are explained and eventually students move on to their next class. Unfortunately, many assignments are not completed by many students and teachers begin to beg, bargain, and threaten students to turn in their work.

Essentially I am a teacher interested in getting students to do more work and be interested in their work. This paper describes my efforts as a teacher to meet this challenge. I begin by describing problem based learning (PBL) as a viable option for a year long experience in middle school. I then present the Civilization Project, a manifestation of a year long PBL experience I designed in which students develop their own civilizations. Next I discuss research results on data I gathered about the student completion rate of assignments related to the Civilization Project and not related to the Civilization Project. Finally, I outline how the elements of a year long PBL experience, such as the Civilization Project, can inform teachers as they design assignments and curriculum utilizing imbedded motivational components.

PBL and THE MIDDLE SCHOOL

I teach ancient world history, from prehistory through the 1500's, to sixth graders in a typical suburban public middle school. Civilizations of study include, for example: Ancient Sumer, Ancient Egypt, West African Kingdoms, China through the Qin Dynasty, and Ancient Greeks and Romans. At my school, students had seven classes: language

arts, reading, mathematics, science, social studies, and two co-curricular classes. Students were in each class for 48 minutes. Students were grouped into teams based on the core curricular teachers. However, there was substantial cross team teaching due to the large number of students in the school. As such, interdisciplinary planning was greatly restricted.

The students in my classroom scored Proficient to Below Basic on the state standardized test for language arts and/or mathematics. Students with an Individualized Education Plan or a 504 Plan were included within my classroom as well. Those students who scored Advanced on either test attended social studies within the gifted and talented program. The 2002-2003 school year is the first year that a standardized test will be given for Social Studies, as such standardized test score data for social studies is not available for this paper.

For my students, my class is the first time they have had Social Studies as a separate subject, and one that met each day. Furthermore, it is the first time they are studying history unconnected to American history and being exposed to ancient history and cultures. Prior, students have studied such topics as the Civil War, World War II and the Holocaust. In addition, these students think of history as something relating to "dead people."

Problem based learning is a teaching approach that claims to increase student motivation, make material relevant for students, and increase the use of higher-order thinking skills (Torp and Sage, 1998; Delisle, 1997; Schmidt and Moust, 2000).

PBL is often employed as a structure for specific individual units. Torp and Sage (1998) and Delisle (1997) explain that PBL challenges students to face and resolve a

problem while working collaboratively in groups. In general there are six elements in PBL:

1. A problem that is ill-structured, developmental, involves student experiences and is based on the curriculum;
2. A process where students identify relevant issues and list information they already know, what they need to know and ideas for researching that information;
3. The gathering of information and revisiting the list of issues and questions;
4. A solution and evaluation of its fit for the problem;
5. The presentation of the solution;
6. A debriefing session about the learning experience.

I believe PBL can be utilized to support middle school social studies students. However, certain modifications need to be made in order to meet the issues related to my particular situation. 1. I needed to tie ancient world civilizations together and to the students' lives. In essence there needed to be continuity between units. This lead me to create an experience that extended throughout the year; something that was never completed with any one unit, but required continual revisiting as we studied each civilization. 2. I needed to support students as they developed their organization, research, and problem identification and solving skills. Sixth graders are transitioning from elementary school to middle school and with that change there are important issues that must be addressed. The key is issue organization, such as: papers, binders, book bags, notes, and extended assignments. My assignments had to have great support at first and then slowly have the support removed as their skills and confidence increased. 3.

My curriculum is the state standards. As such, I needed to use the standards as the base for the experience. Analyzing the standards showed that "contributions" of the civilizations was continually stressed. This was the link to the student's lives as they could realize that their own life is filled with accomplishments made by previous ancient civilizations. 4. Students had to receive grades for their work. As such, each student had to participate individually in the experience.

THE CIVILIZATION PROJECT

I developed a year-long project which requires each student to develop his or her own unique civilization built from student selected features of the civilizations we study. Students become active participants using knowledge and creating something personal and meaningful. However the project is more than a collective portfolio. The created civilizations evolve into dynamic centers as students make decisions creating a government, developing an economy, and fostering a culture. The civilizations are inhabited by people, located on land, and functions with currency. In fact, it is the ever present opportunity to gain population, land, and money that is the motivational link for the project. Students gain population only through the on-time accurate completion of related assignments. The overall goal is for the civilizations to survive.

The Civilization Project is composed of four essential elements and each is explained in depth:

1. Land
2. Features of Civilizations
3. Population

4. Money

1. LAND

A. Location. Civilizations exist within the northeast quadrant of the world map because the majority of the ancient civilizations existed within the northeast quadrant and there is the greatest quantity of land available. Early within the project, each student selected two numbers which placed him/her within the northeast quadrant, between 0 – 70 for latitude and 0 – 180 for longitude. (If a student "landed" within the water, I moved him/her to the nearest piece of land.)

B. Geography Form. Students use the modern country within which they were placed to research the nearest fresh water source, natural resources, and general weather conditions. This information is gathered from textbooks, almanacs, atlases, encyclopedias, and the Internet. Students research individually or in groups by their country. Students use this information throughout the year as they complete related assignments.

C. Civilization Map. Students keep and regularly update a map describing the land use for the civilization. Land is used for homes, crops/herds, and features of the civilization. Students must designate at least two blocks of homes for each 1000 people and at least two blocks of crops/herds for each 1000 people. Furthermore, each and every feature "brought into" a civilization must also have a place on the map. The minimum size of a feature is one block, but features should be relative in size; for example, a Ziggurat is larger than a merchant's shop.

2. Features of Civilizations

A. Contribution Charts. Features of each studied civilization are categorized into three areas: Government, Economics, and Culture. Categorizations are completed by the teacher, as a class activity (individually, small group or large group), or as a homework activity. An example of a contribution chart is in Appendix A.

B. Development Sheets. Students select one or two features of the studied civilization to "bring in" and become a part of their own civilization. Selection of features occur in several ways: students make their choices, students make a Wish List and rank their options with explanations of first and last choices, asking "How can you make your civilization better in Government, Economics, and Culture", and as a preview or review of material. Development Sheets include a title of the feature, a colored and bordered illustration of the feature, a description of the feature as it existed in the original civilization, uses of the feature as it will be used in the student's civilization, and benefits of the feature for the student's civilization. The structure for Development Sheets is in Appendix B.

3. Population

Students earn population for on-time accurately completed assignments. Assignments can be "civilization" related (i.e. Development Sheets) or other assignments. Students frequently earn 1000 people for each completed assignments. Total population for each civilization is updated and posted regularly.

4. MONEY

A. With the study of the Lydians (the first to coin money), students receive money. Money is called CIEM, standing for the first four ancient civilizations: China, India, Egypt, and Mesopotamia.

B. Taxation. Students receive CIEM for their civilization through the taxes collected from their population. Students receive CIEM in the amount of 1% of the population. While this does not take into account the money earned by the people of the civilization (I have not tackled that issue yet), I assume that the population is employed and earning money and necessarily pays the government. The payment of taxes assumes students have "brought in" some form of government; if not, students do not receive taxation.

C. Uses of CIEM. Students can use CIEM to improve their own civilization by buying additional Development Sheets, buying land, and joining Alliances. Students also have the opportunity to spend CIEM for personal benefit, such as: buying a one day late pass for an assignment, an extra copy of an assignment or paying a tariff for being late to class.

Land, features, population, and money provide the base of the Civilization Project. Across the year, students are making decisions in order to make a civilization that reflects their desires and provides for the needs of a population. There is no clear path to follow; each student makes their choices and develops their own civilization.

However, developing is only the base; challenges arise that test the appropriateness of the choices. These challenges are either specifically related to a unit or are based on civilizations in general.

Challenges are situations that affect the student's civilization and which the student must use content specific material (i.e. related to ancient civilizations we are studying) and/or prior decisions (i.e. Development Sheets or Geography Form) to respond to the situation. In all cases, civilizations face the potential of losing people, land, features, and/or money based upon the quality and thoroughness of their responses. Challenges are designed to expand knowledge and skills within social studies while further developing one's civilization.

General challenges come in the form of disasters, such as: drought, fire, theft, rebellion, disease, greedy officials, counterfeit money, traders being lost. Students respond to their disaster using any Development Sheets at their disposal, including assistance from any alliance members (if they chose to create and alliance.) Thus, if a student has the potential for lost merchants, but had brought in Maps, Navigation, or Compass, then they would not experience a disaster. Unit specific challenges include:

- Selecting technology to respond to issues of a river (Sumer and Egypt);
- Developing laws to address issues of youths (Sumer);
- Develop a unifying central belief (Egypt) Appendix C;
- Analyzing social structure and opportunities (Ancient India);
- Determining the extent and means of unification (Ancient China);
- Defending against a military attack (Greek/Roman) Appendix D;
- Articulating the extent of participatory government (Greek/Roman);
- Deciding on colonization (Greek/Phoenician);
- Opening markets for trade (West African Kingdoms) Appendix E;
- Surviving the Black Death (Middle Ages);
- Seizing a castle (Middle Ages);
- Selecting a leader for a Crusade (Middle Ages) Appendix F;
- Competing for a “Renaissance Man” (Renaissance);
- Delivering a speech about a religious split (Reformation).

These challenges bring issues that faced ancient civilizations to the students themselves and require thoughtful, creative, and contextual problem solving. Students use their Development Sheets to assist them in developing responses. Student civilizations are not exempt from consequences as based upon student responses population (hence taxation) is affected positively or negatively and the civilization continues to develop.

The Civilization Project is an example of a PBL experience that extends the applicability of PBL into the middle school, ancient history, and as a year long experience. In essence the Civilization Project has two layers of PBL operating at the same time. The first layer has students trying to create a civilization that survives and fulfills their expectations. This is the long term PBL layer. With each civilization features are brought into the civilization through Development Sheets and challenges are faced that allow students to experience positive or negative consequences of their choices and make new decisions utilizing prior choices as resources. These challenges are a second layer of short term PBL.

Overall, the Civilization Project meets each of the six previously listed elements of PBL, as indicated in Table A: Comparison of Problem Based Learning and the Civilization Project.

Table A: Comparison of Problem Based Learning and the Civilization Project.

Problem Based Learning Elements	Civilization Project Elements
▪ A problem that is ill-structured, developmental, involves student experiences and is based on the curriculum	▪ Development of civilization without teacher plan ▪ Challenges embedded within units ▪ Opportunities for alliances, colonies,

	and use of money ▪ Standards-based
▪ A process where students identify relevant issues, list information they already know, what they need to know and ideas for research that information	▪ Civilization Binder shows that they continually know ▪ Matching of contribution chart features to existing features in student civilization to identify needs
▪ The gathering of information and revisiting the list of issues and questions;	▪ Independent research ▪ Direct instruction ▪ Collaborative group work ▪ Establishment of alliances
▪ A solution and evaluation of its fit for the problem	▪ Technologically possible for time period ▪ Thoroughly explained by student ▪ Appropriate resources available within civilization
▪ The presentation of the solution	▪ Development Sheets created ▪ Written plan for challenges submitted ▪ Decision is explained to groups/teacher
▪ A debriefing session about the learning experience.	▪ Consequences are experienced in civilization ▪ Written reflection by student in civilization log ▪ Student review of binder ▪ Student comparison of their civilization with other civilizations

The one feature of PBL that appears to be missing is the group structure. However, upon closer examination, the group element functions in subtle ways. First, students can join alliances with other civilizations at any time through completing the appropriate sheet. Alliances ofter coordinate bringing in a wide distribution of Development Sheets and collaborate on meeting challenges. Second, when challenges are presented, groups of related situations or problems arise in order to empathize, support and brainstorm solutions. Thus, groups collaborate in an unstructured process that arises through student initiative.

Over the year I observed students engaged in material. However, I needed to return to my original inquiry and gather data about the impact of the project on student

motivation. While PBL claims increased motivation, there is little research on the middle grades (Schmidt and Moust, 2000). One area in claiming benefits for any teaching strategy is students' time on task, and evidence of this can be gathered using the number of appropriately completed assignments. I designed a study to analyze the assignment completion rate of students to gather some indication about student motivation to complete work.

IMPACT ON STUDENT MOTIVATION

My school has a free and reduced lunch population of 30%. Students enrolled in my sixth grade social studies class participated in the Civilization Project. In the 2001-2002 school year, there were 90 students: 47 males and 43 females; 57 African Americans, 28 Caucasians, and 5 Hispanics.

During the 2001 – 2002 school year, I tracked each individual student's completion of all assignments. I categorized assignments by the type of assignment and the impact of the assignment. There were two types of assignments: (1) related to the Civilization Project and (2) not related to the Civilization Project. Assignments in both areas included reading, answering questions, writing responses, conducting research, drawing visual representations, and working in class and out of class. As such, there was no major difference in the tasks required. There were four impact categories, meaning ways in which the assignment would affect the student and/or their civilization: (1) impact only on the student's grade, (2) impact only on the student's civilization, (3) impact on the student's civilization and grade, and (4) no impact on the student's grade or civilization. Briefly, impact on grades means that the assignment was graded and would

be averaged into a student's final average for the class. Impact on the civilization means that the civilization's population, land, resources, features, or money would be affected positively or negatively based on the completion of the assignment. Impact on grades and civilization means that the final average was affected and there were positive or negative consequences for the civilization. No impact means that the assignment was not graded nor was there any affect on the civilization. The average completion rate of assignment by quarter, assignment, and impact is listed in Table 2: Percentage of Assignments Completed. A full breakdown of completion rate by race and gender is in Appendix G.

Table 2: Percentage of Assignments Completed
by Quarter, Assignment, and Impact

	First Quarter	Second Quarter	Third Quarter
Civilization Project Assignments (CP)	93	87	86
Non Civilization Project Assignments (NCP)	78	77	72
Impact on Grades Only	90	91	78
CP and Impact on Grades Only	90	92	85
NCP and Impact on Grades Only	-	90	73
Impact on Grades and Civilization (CP Only)	97	94	87
Impact on Civilization Only	85	81	83
CP and Impact on Civilization Only	90	90	83
NCP and Impact on Civilization Only	75	77	-
No Impact	70	75	62
CP and No Impact	70	81	-
NCP and No Impact	69	70	62

For each quarter, more students completed Civilization Project assignments than non-Civilization Project assignments. In fact, at least ten percent more assignments were completed when they were related to the Civilization Project.

Turning to the impact of the assignment, there is a distinction between the different types of impact. The difference in completion of assignments is as great as 27% during a single quarter. During the first and second quarters most students completed the

assignment when the assignment was graded, 90% for the first quarter and 91% for the second quarter. However, the percentage of completion decreased to 78% during the third quarter. If the impact was only upon the student's civilization, students completed from 81 – 85 percent of the assignments for all three quarters. The highest percentage of students completing assignments during each quarter appeared when assignments were graded *and* there was impact upon the civilization, 97%, 94%, and 87% for the first, second and third quarters respectively. The lowest percentage of completed assignments was when there was no impact on grades or civilization, 70%, 75%, and 62% for the first, second, and third quarters respectively.

This data encourages me to continue the Civilization Project. Students seem to be motivated to complete assignments that are related to and impact a PBL similar to the Civilization Project. For instance, in the first two quarters, grades seemed to motivate students more than an impact on the Civilization Project. However, in the third quarter impact only on the Civilization Project motivated students more than impact on grades by five percent. Motivation to complete assignments that impact the Civilization Project seemed to be steady, in contrast to the assignments that impact only grades. Furthermore, the combined impact on grades *and* the Civilization Project produced the highest completion rate. A more focused look at impact areas shows that the percentage of assignments completed was higher when assignments were related to the Civilization Project as compared to non-Civilization Project assignments. As such, the type and structure of the assignment was a greater motivation than an impact/consequence.

IMPLICATIONS FOR TEACHERS

As the teacher who designed the Civilization Project, I was curious as to what made the Civilization Project interesting to students. After examining the correlation between the Civilization Project and other PBL experiences, observations of my students, and conversations and project and self evaluations I highlighted three elements of Civilization Project assignments that I believe contribute to the higher student motivation documented above: Longevity, Decision Making, and Assimilation. A summary of points for each element is listed in Table 3, Elements of Motivational Assignments. I believe that these three elements form a cycle in which the students' civilizations benefit by having specific assignments completed. Assignments build upon one another and students have more resources at their disposal for future assignments. In essence, the benefits of PBL are continually utilized over the course of the year. Students are able to see the civilizations come into existence and develop throughout the year.

Table 3: Elements of Motivational Assignments

Longevity	Decision Making	Assimilation
1. Assignments contribute to a product that exists for the entire course 2. Assignments facilitate students working toward a goal.	1. Students are empowered to make substantial decisions about their learning. 2. Learning is encouraged through making new choices with new material on similar assignments.	1. Assignments are resources and learning tools for future assignments. 2. Students realize positive and negative consequences in the products that follow from their decisions and are a result of assignments.

All three elements of motivational assignments are necessary. The elements help provide the structure for meaning to be constructed by students. Without the element of longevity, assignments lack cohesion, and substance is only short-term. Without the

element of decision making, there is no originality or personalization within coursework. Without the element of assimilation, assignments lack a dynamic quality and become a static showcase.

Making Assignments Have Longevity

To have longevity, assignments contribute to a product that exists during the entire course rather than a single unit PBL. In essence, assignments are grouped around a major theme of the course and necessitate students working toward a goal throughout the course that is manifest within the product. This is, as mentioned earlier, long term PBL. In the Civilization Project the general goal is to create a civilization that survives, and the civilization itself is the product created. Assignments are not an end in themselves; the product itself is integral to the instruction during the course. The core assignment of the Civilization Project is Development Sheets. As described, these assignments require students to select a feature from the studied civilization to become a part of their own civilization. A student may have selected Block Printing from Ancient China, Professional Soldiers from Sumer, and Aqueducts from the Assyrians.

With longevity, assignments build upon and are affected by other ones. Students begin to see the connections between different units and subject matter throughout the year. For example, when students learned that iron weapons were stronger than copper ones, many students "brought in" iron weapons from the Hittites. Consequently, the students' civilizations evolve during the entire year as students complete Development Sheets with each civilization. By the end of the year, each student completes twenty

Development Sheets. Longevity enables students to create a meaningful product that connects all major units or strands together.

Incorporating Decision Making into Assignments

Decision making provides students with ownership of their work, and ultimately, their learning. As with all PBL, to design an assignment with decisions, students need to be empowered to make substantial choices. Civilization Project assignments require students to make decisions about the creation of their civilization when they choose the features to bring into their civilization. Students set goals and reflect upon their success in meeting these goals. One student may want to create a militarily strong civilization and decides to bring in soldiers, weapons, and defensive features. Another may want an economically strong civilization, so she brings in ships, carts, merchants, and craftpersons. Students also have the opportunity to go beyond the basic requirements by creating alliances, raising taxes, and/or establishing a colony.

While the quality on assignments must meet certain criteria, the teacher does not judge the decisions themselves. Decisions are evaluated by the student as they meet the student's own goals. However, decisions are also tested by curricular related challenges. As already discussed, some assignments involve placing civilizations within a problematical situation. Frequently called disasters, students use their resources, including Development Sheets, to respond to floods, counterfeit coins, lost merchants, or being attacked by nomads. In the case of merchants being lost, if a student made the decision to bring in a compass, maps, or navigation using the stars, the merchants would not be lost and the civilization would be saved from the disaster. However, without a

feature to help the merchants, the civilization will experience a loss of money due to lost goods. Students develop the skill of decision making by making repeated decisions in new situations with similar, but new material. They apply their learning gained from previous decisions and assignments. With disasters, students make new choices for Development Sheets as they prepare for the uncertainty of future disasters.

Assimilating Assignments into Course Content

An assimilated assignment is an extension of the two previous elements. Essentially, an assimilated assignment leads students back to academic material and becomes a resource for future assignments. Completed assignments are not forgotten; they are brought into the product and are essential to the success of reaching the student's goal. In the Civilization Project, students learn about the natural resources of their civilization, and later create a product for sale based upon the natural resources. Furthermore, their markets for trade are determined by their transportation technologies that they brought into their civilization through Development Sheets.

Assimilated assignments include an adhesive link that binds all related assignments together and to the product. This is typically in the form of effects. These effects are similar to intrinsic rewards because they are based upon decisions made by the student and are related to a goal driven product created by the student. With the Civilization Project, assignments help students gain population, land, features and money. For example, civilizations gain people for each Development Sheet completed on time. Civilizations receive taxation payments the first of every month, and these are based on the population of the civilization. Students are able to use the civilization money to

enhance their civilization by joining alliances, purchasing products during Market Day, and traveling to civilizations to get bonus Development Sheets. Referring to the first and second elements, these links impact the product and encourage students to make improved decisions.

CLOSING REMARKS

PBL is an exciting venue for teachers and students. Often however, it is used in single units within secondary or university courses. My work with the Civilization Project documents a wider vision for PBL and provides preliminary data about its effect on student motivation for middle school students.

APPENDIX A: CONTRIBUTION CHART
Ancient Sumer and Mesopotamia

Government	Economics	Culture
Bows and Arrows Invented by Sargon City Planning with Streets Streets with right angles City-State Rule of city & surrounding farmland, each independent Copper Weapons & Helmets Copper swords and helmets King Single ruler; monarchy Laws System of rights and responsibilities; consequences of violation Soldiers & Army Professional fighters	Calendar Based on the flooding of the Tigris river; planning for crops Craftsmen Copper & bronze workers, carpentry, leather workers, weavers, basket weavers Irrigation Diverting water to crops via canals and ditches Map Making Round clay disks marking location of places Mud Bricks Made from river mud and dried in the sun Seals Clay symbols used for identification of property Wheel *Used for pottery and later for carts as means of transportation*	Cuneiform & Scribes Wedge-like symbols into clay tablets; scribe are the writers Epic Poetry Long poem telling a tale Gods and Goddesses Many covering all areas of life; each city had patron god/goddess Homes One or two story home made from mud bricks Jewelry *Gold, silver, gems, precious stones; necklace, earrings, headdresses* Medicine & Doctors Practice of surgery and simple medicine from plants Mes Belief that divine law controls all aspects of life; predestination Musical Instruments Harp, Tambourine, Drums Number System Based on 60, our use of seconds and minutes come from this Palace Large buildings with gardens for the rulers Schools & Teachers Places to learn reading and writing, also math, law, biology Statues Stone objects showing people Sundial Dial noting time using the sun's shadow Ziggurat & Priest Pyramid shaped temple with many steps; dedicated to gods; priests perform ceremonies

APPENDIX B: DEVELOPMENT SHEET

Name of Contribution

what you are bringing into your civilization

Civilization of Study

where the contribution is from

Bordered and Colored Illustration of Contribution

Description of the contribution as it was used in the ancient civilization using complete sentences. *What was the contribution?*

Uses of the contribution within your own civilization using complete sentences. *How will your civilization use it?*

Benefits of the contribution for your own civilization using complete sentences. *How will the contribution make your civilization better and improve it?*

Left Corner Right Corner

Your Name & Number Your Civilization Name

APPENDIX C: "Life Everlasting"

The Ancient Egypt Problem

Situation: The people in your civilization are very uncertain about why events happen, most importantly what happens after someone dies. People need an explanation and some structure to understand this. Many people have heard merchants tell stories about Egyptian pyramids, hieroglyphics, and mummification. They want to know what should be done within their own civilization. People are getting scared!

Your Task: Gather information about the Ancient Egyptians and use that knowledge, with previous information about Sumer, to create an explanation of death, and beyond, for your people. We will work in class and in the computer lab on Monday, Tuesday, and Wednesday in order to provide opportunity for you to gather information and prepare your Requirements.

Important Features of Egypt to Explore:

Pyramid	Osiris	Ba
Hieroglyphics	Anubis	Pharaoh
Mummification	Ma'at	Papyrus
Natron	Thoth	Weighing of the Heart
Canopic Jars	Ka	

Requirements: *Due Thursday August 29, 2002 at the beginning of class*

1. Answer: How did the Ancient Egyptians attempt to achieve "Life Everlasting" (life after death)?

   Answer this question using some of the Important Features above. This should be a well written paragraph.

2. Answer: What explanation are you going to offer your civilization about death and systems or structures will you put in place to deal with death?

   A. Written explanation about what your people will believe that happens at death. Describe what is believed about the body and the "soul" (if that is part of your civilization's belief.) Remember, use your information from Ancient Egypt to help give you something to work with.

   B. Three images and written explanations about what needs to be done when someone dies. This can include:

   - the body
   - a ceremony marking the death of the person or passing on
   - placement of the body somewhere important
   - buildings or places for the body or other important features of the dead person
   - any special writing that needs to take place
   - people who are involved (family, religious people, etc.)

possible gods/goddesses

APPENDIX D: Military Disaster

You are being attacked by the ROMANS GREEKS

Complete the following on a separate sheet of paper.

A. Use your notes to compare your military to your attacker's. What are the strengths and weaknesses in each of the following areas:

	Attacker	Yours
➢ **Organization of Troops**		
strengths		
weaknesses		
➢ **Weapons and Protection**		
strengths		
weaknesses		
➢ **Siege Ability**		
strengths		
weaknesses		
➢ **Tactics and Strategy**		
strengths		
weaknesses		
➢ **Battle on Sea**		
strengths		
weaknesses		

B. What do you think would be the probable outcome of a military battle between you and your attacker? Explain using several reasons.

C. *What might be some alternatives to a military battle with your attacker in order to convince your attacker not to attack? Fully explain each idea.*

APPENDIX E: West African Kingdoms Establishing Market

- Complete Map of Africa (March 4)
- Mini-Lessons and Test (March 14) on Geography, Islam, Ghana, Mali, and Songhay
- Complete Each Part using the different resources. Use the provided set of maps for map work and write any work on a separate sheet of paper. Be sure to label each part of the project when you do the work. You will clip/staple all of your work together at the end.

Food Disaster (March 5)

Complete the Food Disaster in Class *(Use your textbook page 365 – 371)*

Route to Timbuktu (March 6)

1. Determine the best route to Timbuktu from your civilization. *(Use textbook 360-371)*
2. You need to know and explain:

A. the distance
B. the civilizations you would travel through (as of 800 AD)
C. the travel options you have
D. the cost for the trip if it was 20 CIEM/500 miles

3. Plot your route on the map.

Markets of 800 AD (March 11)

1. On the map, label and color the different ancient civilizations. *(Use Historical World Atlas, page IV, map 8)*
2. On the map, label major centers of trade and major trade routes. *(Use textbook pages 360-361)*
3. Determine and write which routes you can access and what you have to do to get there.

Muslim Traders (March 12)

1. Write and list the products Muslims traded, including what went to each place and from each place: China, India, West Africa (Soninkes, Ghana, Kenem, Gao, Mali, Songhay), and East Africa (Swahili). *(Use textbook 376)*
2. On the map, color the areas where Muslims traded (different color each place).
3. On the map, outline the extent of Islam today (2003). *(Use World Religions pages 52-53)*
4. Write and list the ideas that were exchanged via the Muslims. *(Use textbook 376-377)*
5. Write and describe the 5 way in which your civilization could benefit from the Muslim traders.

Technological Advances for Trade (March 13)

1. Write and list the technological advances of **trade** that helped Rome, China, and Muslims conduct trade (including Transportation, Trade, Navigation, etc.) *(Use textbook, classroom resources, Contribution Charts)*
2. Write and list the technological advances of **trade** that you have in your civilization.

Establishment of Market (March 14)

1. On the map, determine the place where you would establish a market (where is there a need?)
2. Write and explain your selection based on Climate, Landforms, Access, and Safety.
3. Write and explain what you would be able to offer at this market and how it is something better than that which already exists in the ancient markets of 800 AD. *(Use info. Muslim Traders)*
4. Write and explain how you would access the market and the cost for that trip at 20 CIEM/500 miles.

Create a quality advertisement for your market and products offered.

APPENDIX G: Percentage of Assignments Completed by Students by Quarter, 2001-2002

CP = Civilization Project Assignments **NCP** = Non Civilization Project Assignments

		Boy (47)	Girl (43)	Black/Hispanic (62)	White (28)
CP 1ST	***93***	**92**	**93**	**93**	**91**
CP 2ND	***87***	**85**	**88**	**87**	**86**
CP 3RD	***86***	**87**	**85**	**86**	**87**
NCP 1ST	***78***	**75**	**81**	**78**	**78**
NCP 2ND	***77***	**75**	**78**	**78**	**72**
NCP 3RD	***72***	**71**	**73**	**72**	**71**
GRADED 1ST (CP)	***90***	**88**	**92**	**89**	**90**
GRADED 2ND	***91***	**91**	**90**	**92**	**87**
GRADED 3RD	***78***	**74**	**82**	**79**	**76**
GR CP 1ST	***90***	**88**	**92**	**89**	**90**
GR CP 2ND	***92***	**92**	**92**	**93**	**89**
GR CP 3RD	***85***	**78**	**91**	**88**	**76**
GR NCP 1ST	**-**	**-**	**-**	**-**	**-**
GR NCP 2ND	***90***	**90**	**89**	**91**	**85**
GR NCP 3RD	***73***	**70**	**75**	**71**	**75**
GR EFFECT 1ST (CP)	***97***	**97**	**96**	**98**	**93**
GR EFFECT 2ND (CP)	***94***	**95**	**93**	**96**	**91**
GR EFFECT 3RD (CP)	***87***	**90**	**84**	**86**	**89**
EFFECT 1ST	***85***	**83**	**86**	**84**	**86**
EFFECT 2ND	***81***	**79**	**82**	**83**	**75**
EFFECT 3RD (CP)	***83***	**80**	**86**	**82**	**86**
E CP 1ST	***90***	**88**	**92**	**90**	**89**
E CP 2ND *	***90***	**90**	**90**	**92**	**86**
E CP 3RD	***83***	**80**	**86**	**82**	**86**
E NCP 1ST	***75***	**74**	**75**	**71**	**82**
E NCP 2ND	***77***	**76**	**78**	**80**	**70**
E NCP 3RD	**-**	**-**	**-**	**-**	**-**
CHECK 1ST	***70***	**65**	**74**	**69**	**68**
CHECK 2ND	***75***	**74**	**76**	**76**	**73**
CHECK 3RD (NCP)	***62***	**60**	**63**	**60**	**64**
X CP 1ST	***70***	**65**	**75**	**68**	**74**
X CP 2ND	***81***	**80**	**82**	**81**	**81**
X CP 3RD	**-**	**-**	**-**	**-**	**-**
X NCP 1ST	***69***	**65**	**73**	**70**	**67**
X NCP 2ND	***70***	**68**	**71**	**71**	**66**
X NCP 3RD	***62***	**60**	**63**	**60**	**64**

APPENDIX F: Renaissance Patron

Background:
People in your city feel it is necessary to enrich their lives. Some are talking about paintings, other sculptures, while others are interested in literature. Some people are curious about the sciences and finally some are intrigued by architecture. All of the people have heard about significant experts in each field.

Your Situation:
You are the leader of a group of your city's patrons. Your task is to select one person (from the Renaissance) which your people will support. *Only one of each Renaissance person will be available per class.*

Task: Complete the following on notebook or other paper. Your work needs to be neat and organized. Points possible indicated in ( ).

- *Need (10):* Determine the area or areas which are in need: paintings, sculpture, architecture, literature, or science. You need to explain what is lacking within your civilization.

- *General (45):* Gather general information about three people in the area(s) you need (only one may be da Vinci or Michelangelo) – who the person is, when the person lived, what the person did (name and description of two pieces of work), and why the person is important to history. Websites are posted on Blackboard within the Website button.

- *Selection (30):* Select one person who you would want to come to your city to be your Renaissance Person. *Only one of each Renaissance Person will be available within each class. Select well!* In your selection, include: (1) Explain why you selected this person over the others. (2) Explain how this person will improve your civilizations, cite **three** specific reasons. (3) Describe the type of work you expect from this person, cite **three** specific projects the person would do in your civilization.

- *Offer (15):* How will you convince the person to go to your city? (The person could decide to go to someone else's civilization!) You need to explain the offer you will make to the person. You may want to consider the pay, quality of life the person will have in the city, the fulfilling and interesting work the person will do, the benefits from the city, special events or honors you will bestow on the person. Remember, only one offer for each Renaissance Person will we awarded, so make the best offer possible.

Civilization Project Benefits:
If your civilization is selected to have the Renaissance Person you will receive more people (2000), the people will be better educated, and people will be more creative. Needless to say, this will bring great prestige and honor to your city and its citizens.

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