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Assessment Creation Assignment
Empire of Mali: Third Grade
CRIN 550
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I. Overview and description of course and classroom

The goal of Virginia's social studies standards is to develop student participation in and knowledge of the United States' democratic system and its citizens' civic responsibilities. In studying Mali, an ancient autocratic culture in another region of the world, students use and extend their social studies knowledge and skills and gather knowledge with which they can compare and contrast the history and government of the United States. Similar to Egypt, China, Greece, and Rome, Mali offers an opportunity for students to develop and expand their chronological thinking and their understanding of historical "connections between causes and effects and between continuity and change." Students also learn about the impact of individuals, ideas, and events in shaping history, heighten their comprehension of geographic themes, and apply map, globe, and additional geographic skills.

The intended learning outcomes for the Mali unit of study are:

History: 3.2 The student will study the early West African empire of Mali by describing its oral tradition (storytelling), government (kings), and economic development (trade).

Geography 3.4 The student will develop map skills by

- a) locating Greece, Rome, and West Africa;
- b) describing the physical and human characteristics of Greece, Rome, and West Africa;
- c) explaining how the people of Greece, Rome, and West Africa adapted to and/or changed their environment to meet their needs.

Economics 3.7 The student will explain how producers in ancient Greece, Rome, and the West African empire of Mali used natural resources, human resources, and capital resources in the production of goods and services.

Economics 3.7 Essential Skills:

- Gather, classify, and interpret information.
- Draw conclusion and make generalizations about data.

A table of specifications is an organizational tool used to match instruction to the state standards and classroom assessments thereby ensuring content validity of tests. It breaks down, identifies, and then categorizes the content and the cognitive levels (as delineated by Bloom's taxonomy) contained in the relevant standards. The classroom teacher uses a table of specifications to align instruction to standard-mandated content and then to align unit assessments with this key content at the appropriate cognitive level. For example, in teaching my upcoming unit on the ancient empire of Mali, the specific content itemized in the SOLs requires my students to understand the griot storytelling tradition, the role of its kings, and its reliance on the gold and salt trade. In examining the table of specifications, I can clearly observe that the SOLs do not require an understanding of Mali's prominent role as an Islamic state or Timbuktu's renown as a center of Koranic study and Islamic architecture. I may opt to mention these facts but consulting the table of specifications ensures that I will emphasize those aspects on the unit that will be assessed in the upcoming SOLs. My teaching and assessment will focus on griots, kings, and trade - the SOLs' intended learning outcomes – rather than Mali's religious legacy.

A separate assessment will be used to demonstrate student learning of the essential skills detailed in standard 3.7. This informational and data analysis is not addressed on the assessment created for this assignment and detailed below. Instead, these essential skills will be assessed through an assessment that presents data on Greece, Rome, and Mali (the three ancient civilizations studied in the third grade) alongside data on Egypt and China (review from second grade that third graders must know for the May SOL). Students will analyze and compare graphs and charts documenting economic, demographic, and geographic information of these five ancient civilizations.

Classroom Characteristics

This third grade classroom is comprised of twenty-three total students (nine girls and fourteen boys) with a relatively narrow demographic. Twenty-one students are Caucasian, one is African-American, one is Asian American, and one is Hispanic. The class is predominantly middle to high socioeconomic status with only one student receiving free or reduced price lunch. No students in the class

have an IEP or 504 plan and none are receiving ELL services however three students are receiving RTI intervention targeting reading comprehension and word study. Twelve children participate in a weekly Visions program for students who have been identified as early candidates for gifted services.

Use and Purpose of Assessment

Given the fact that the third grade classrooms at Matoaka use a common summative assessment for end-of-unit tests, I will use my assessment as a formative assessment during the review lesson for the Mali unit. It will serve as a graded assignment and be weighted equivalent to graded homework and a reading passage assignment. It will reflect the intended learning outcomes that will be assessed in the common summative assessment and that are referenced above.

The students in my third grade class are accustomed to assessments that include up to twenty questions. They are using classroom assessments in preparation for their upcoming SOL exams and therefore have extensive experience and comfort with the multiple-choice format of this assessment.

Table of Specifications

Content	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Early West African empire of Mali: ○ oral tradition (storytelling)		X study 1, 10				
Early West African empire of Mali: ○ government (kings)		X study 2				
Early West African empire of Mali: ○ economic development (trade)		X study 3, 4, 8, 13, 15				
Map skills	X develop locate 14	X describe explain 11, 12, 13				
How producers in the West African empire of Mali used natural resources, human resources, and capital resources in the production of goods and services		X explain 5, 6, 7, 9				
Informational and data analysis	X gather **		X classify **	X interpret 13	X draw conclusions ** X make generalizations **	

** Assessed in separate analysis and comparison of graphs and charts documenting economic, demographic, and geographic information of China, Egypt, Greece, Rome, and Mali.

II. Design elements of the assessment

<p>Intended Learning Outcome: <i>Underline the content and circle the word(s) that provides an indication of cognitive level(s)</i></p>	<p>Content: <i>List the explicit, implied, and conditional content</i></p>	<p>Cognitive Level on Bloom's Taxonomy: <i>Provide the cognitive level(s) in terms of Bloom's Taxonomy</i></p>
<p>History: 3.2 The student will study the <u>early West African empire of Mali</u> by describing its oral tradition (storytelling), government (kings), and economic development (trade).</p>	<p>Explicit – early West African empire of Mali Implied – What is an empire and how is it different from a kingdom and a democracy? How is African geography divided into regions (north, south, west, east)? Conditional – by describing its oral tradition (storytelling), government (kings), and economic development (trade)</p>	<p>“study” Comprehension</p>
<p>Geography 3.4 The student will develop map skills by a) locating Greece, Rome, and West Africa; b) describing the physical and human characteristics of Greece, Rome, and West Africa; c) explaining how the people of Greece, Rome, and West Africa adapted to and/or changed their environment to meet their needs.</p>	<p>Explicit – map skills Implied – Map and globe skills and conventions (directions, symbols, scales, keys). Descriptors and variations of physical and human geography. Conditional – by a) locating West Africa; b) describing the physical and human characteristics of West Africa; c) explaining how the people of West Africa adapted to and/or changed their environment to meet their needs.</p>	<p>“develop” Knowledge “locating” Knowledge “describing” Comprehension “explaining” Comprehension</p>
<p>Economics 3.7 The student will explain <u>how producers in ancient Greece, Rome, and the West African empire of Mali used natural resources, human resources, and capital resources in the production of goods and services.</u></p>	<p>Explicit – how producers in the West African empire of Mali used natural resources, human resources, and capital resources in the production of goods and services Implied – What are producers? What are natural, human, and capital resources? What are goods and services? Conditional – None</p>	<p>“explain” Comprehension”</p>
<p>Economics 3.7 Essential Skills: Gather, classify, and interpret information. Draw conclusion and make generalizations about <u>data</u>.</p>	<p>Explicit – Informational and data analysis Implied – Understands how to collect and analyze information from text, illustrations, charts, and graphs. Conditional – None</p>	<p>“Gather” Knowledge “Classify” Application “Interpret” Analysis “Draw conclusion” Synthesis “Make generalizations” Synthesis</p>

Validity

This assessment is a valid and reliable assessment of student learning about ancient Mali. As seen in the above table of specifications, this assessment demonstrates sound construct validity, also known as “face validity”, because it is aligned to the Virginia Standards of Learning on Mali not only in breadth of content but also in terms of the different cognitive levels demanded by the standards. The individual questions on the assessment specifically address the essential knowledge each Virginia third grader is expected to know about Mali and also represent an appropriate sampling among these discrete intended learning outcomes. This broad and systematic sampling is sound evidence of content validity and is thus a reinforcement of the assessment’s construct validity as well as its predictive validity in terms of how students will perform on the Mali questions on the SOL exam. Few third grade social studies SOL questions have been released. Therefore, predictive validity of classroom assessments is best derived through close adherence to a well-constructed table of specifications such as the procedure used to construct this classroom assessment.

Rationale for Assessment Items

This assessment consists of twelve multiple-choice select-response items and three supply-response questions, one of which was fill-in-the-blank and the other two being short answer. My rationale for creating and selecting assessment items was to provide an adequate sampling across the table of specifications and emphasizing the economic characteristics of the empire of Mali. The teachers representing the institutional knowledge of Matoaka’s third grade state that Mali’s economic reliance on trade has been the focus of the majority of SOL questions on Mali. In addition, when developing supply-response items for this 3rd grade summative assessment, I opted for two short-answer items as well as one fill-in-the-blank item with three blanks. I believe that an essay question is beyond the ability of these young students who are still challenged when writing complete sentences and paragraphs. The fill-in-the-blank item ends in three separate blanks of equivalent length. The first short answer item about griots identifies three specific responses that are required. The second short answer item about Timbuktu

requires two responses and is supported by a map that clearly notes Timbuktu's location on a river trade route and between the salt and gold mines. Finally, the map skills targeted in this assessment are aligned with a full day of classroom instruction and the vocabulary terms such as "human characteristics" and "specialization" have been emphasized throughout the year's social studies curriculum.

Reliability

This assessment has been reviewed and edited to limit threats to reliability. In order to guard against systematic error that might be introduced through the use of culturally biased, confusing, or developmentally inappropriate language, a veteran third grade teacher has proofread and critiqued these items. She has reviewed the assessment for readability and clarity. In addition, she commented positively on the grouping of the questions into cohesive sections with a logical flow.

Random error can be introduced by interruptions such as fire alarms, student illness, and timing. To minimize this threat to reliability, the teacher will attempt to minimize distractions and whenever possible schedule around anticipated distractions such as an intrusive activity from a nearby class and the tiredness and lack of focus on Monday mornings or Friday afternoons.

The itemized checklist rubrics ensure both inter-rater reliability and intra-rater reliability. Specifying the exact language required eliminates subjectivity. For item #10's first response, the checklist rubric indicates two possible expressions of the same basic knowledge and thus anticipates some variation in students' written communication. For item #15's response, the checklist rubric maintains both inter-rater reliability and intra-rater reliability by specifying that full credit is only given for an answer that demonstrates knowledge that Timbuktu was situated between the gold and salt mines. If either resource is missing, the student will only receive half credit. In addition, students must demonstrate their understanding that Timbuktu was located on the Niger River and that the river served as an important trade route. In using such a detailed checklist rubric, reliability is optimized because variations in grading are greatly reduced if not wholly eliminated.

Rubrics for select-response items:

#9 checklist rubric:

- ___ (1 point) farmers
- ___ (1 point) miners
- ___ (1 point) traders

#10 checklist rubric:

- ___ (1 point) A griot was a “storyteller” OR “someone who passed on traditions (or stories).”
- ___ (1 point) “Mali did not have a formal written language.”
- ___ (1 point) “Most of what we know about Mali’s history comes from oral accounts that were handed down from Mali storytellers.”

#15 checklist rubric:

- ___ (1 point TOTAL) located between gold mines (*1/2 point*) and salt mines (*1/2 point*)
- ___ (1 point TOTAL) located on the Niger River (*1/2 point*) trade route (*1/2 point*)

Note: Language sourced from SOL Essential Understandings, Knowledge, and Skills

“Short Answer” supply-response item addresses SOL 3.2 “The student will study the early West African empire of Mali by describing its oral tradition (storytelling).”

“Fill-in-the-blank” supply-response item addresses SOL 3.4.b. “The student will develop map skills by describing the ... human characteristics of ... West Africa.”

After the assessment has been administered, I will review each test item individually to discern if a pattern of answers is apparent. I will devote particular attention to items where all students have answered the item correctly and also to questions where a large number of students have answered incorrectly. In cases where all students have answered a question correctly, I will consider whether the item was in fact too easy for the class ability level or if the item was poorly constructed and inadvertently telegraphed the answer to students. If the latter, then the item did not actually assess students’ actual knowledge and the item has poor reliability. For questions where few students answered correctly, I will

need to consider if my instruction was inadequate or if the test item itself was confusing or poorly worded. In either circumstance, I would need to determine if this item should be included in the final assessment grade.

Scoring and Grading

This classroom assessment contains 15 items accounting for 20 total points. Grading will be calculated as a percentage and this formative assessment will be weighed equally with graded homework assignments. I wrote ten items (1, 2, 3, 9, 10, 11, 12, 13, 14, 15) and incorporated five items from Matoaka's 2010 third grade common assessment (4, 5, 6, 7, 8) on Mali. I closely aligned these questions with the table of specifications reflecting Virginia's Standards of Learning as well as my planned classroom instruction.

Name: _____ Date: _____ # _____

Empire of Mali: Unit Assessment

1. Our information about ancient Mali comes mostly from:
 - a. books written by Mansa Musa and Sundiata
 - b. oral stories handed down by storytellers
 - c. paintings drawn in desert caves
 - d. letters written by African gold traders

2. Mali was ruled by:
 - a. a representative democracy
 - b. wealthy gold traders
 - c. groups of citizen voters
 - d. rich and powerful kings

3. In ancient Mali, salt was NOT:
 - a. dug from the banks of the Niger River
 - b. an important natural resource
 - c. mined in the desert
 - d. traded for gold

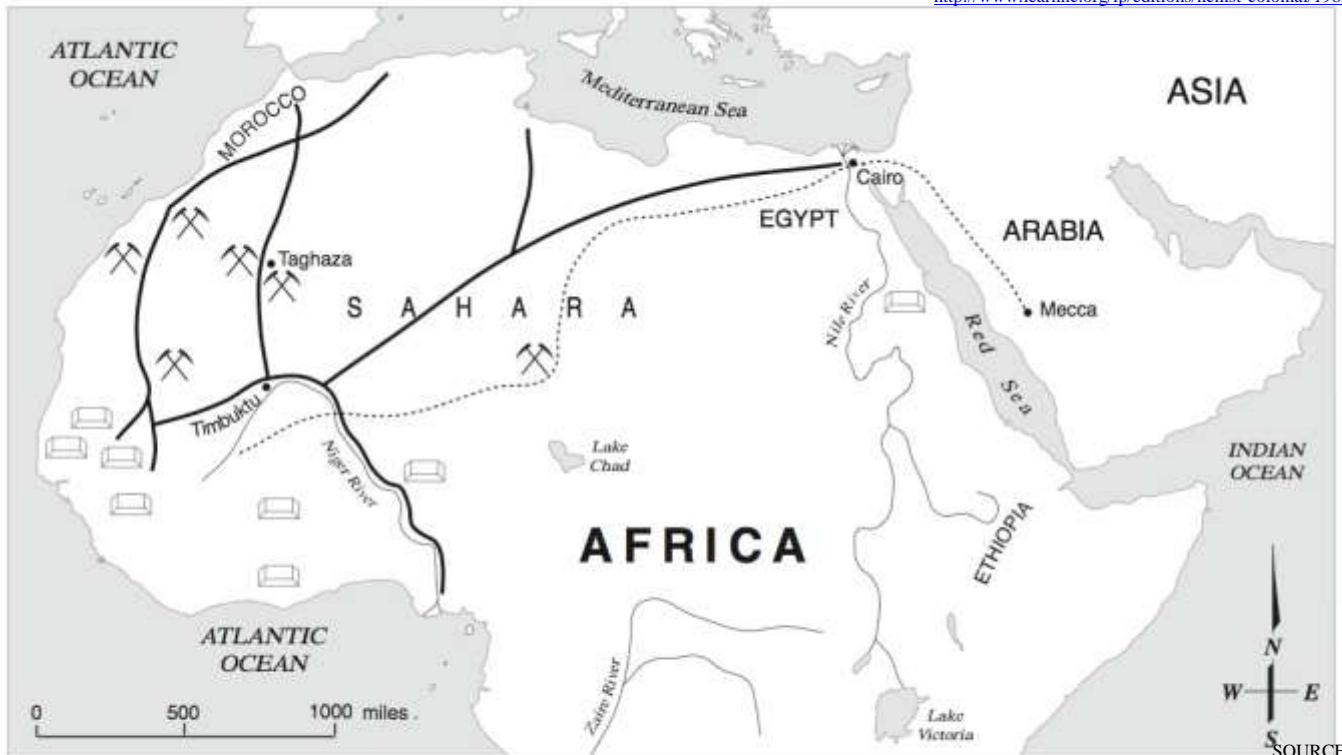
4. In ancient Mali, salt was used to:
 - a. polish gold
 - b. clean water
 - c. preserve food
 - d. make bricks

5. Which of the following was a physical characteristic of ancient Mali?
 - a. mountains
 - b. hills
 - c. deserts
 - d. forests

6. What was NOT an economic specialization of the empire of Mali?
- a. farming
 - b. salt mining
 - c. gold mining
 - d. shipbuilding
7. Economic interdependence means people _____.
- a. need each other
 - b. like each other
 - c. do things alone
 - d. do things apart
8. What made the empire of Mali so wealthy?
- a. building
 - b. sailing
 - c. learning
 - d. trading
9. The Empire of Mali's three human characteristics were _____, _____, and _____.
10. In the empire of Mali, a griot was an important person. Describe (1) the job of a griot, (2) why this job was necessary, (3) and the contributions griots made to the modern world.



Timbuktu: A Center for Trade

<http://www.learnnc.org/lp/editions/nchist-colonial/1982>



SOURCE:

Legend

- Mansa Musa's route to Mecca, 1324
- trade route
-  salt mine
-  gold mine

11. The salt mines of Taghaza are located approximately _____ miles from Timbuktu.
 - a. 100
 - b. 500
 - c. 1000
 - d. 2000
12. The trade route from Timbuktu to Cairo was approximately _____ miles long.
 - a. 100
 - b. 500
 - c. 2000
 - d. 5000

13. On the map, Timbuktu is shown to be:
- a. a city with a university and libraries
 - b. a farming center in ancient Mali
 - c. a stop on Mansa Musa's route to Mecca
 - d. a trading city on the Niger River

14. Mali is located:
- a. in southern Europe
 - b. on the Nile River
 - c. in western Africa
 - d. east of Egypt

15. List two reasons why Timbuktu was an important trading city in Mali.

Empire of Mali: Unit Assessment

ANSWER KEY: (grade entered as a percentage out of 20 total points)

1. b
2. d
3. a
4. c
5. c
6. d
7. a
8. d
9. *(1 point each)* farmers, miners, traders
10. *(1 point)* A griot was a “storyteller” OR “someone who passed on traditions (or stories).”
(1 point) “Mali did not have a formal written language.”
(1 point) “Most of what we know about Mali’s history comes from oral accounts that were handed down from Mali storytellers.”
11. b
12. c
13. d
14. c
15. *(1 point each)* located between gold mines and salt mines, located on the Niger River trade route

IV. Reflection

This assignment required me to design a comprehensive and systematic assessment for a third grade classroom. It represents a six-month effort in two discrete university classes focusing on a unit about the ancient empire of Mali. At the beginning of this process, I developed my lesson plans and its summative assessment with an aim of constructing items that addressed intended learning outcomes, were free of cultural bias, were at an appropriate reading level for third graders, and were well crafted in psychometric terms. More recently, I revisited my original assessment with new knowledge and a more critical eye. I learned to break down the third grade social studies standards of learning into distinct knowledge strands and then to analyze the cognitive levels demanded in the standards. To create a table of specifications on which to build my assessment, I plotted the intended learning outcomes of the Mali unit across Bloom's taxonomy's cognitive levels. I then matched my original questions with the appropriate cell on the table of specifications and developed additional questions to address content areas where the students had not yet been required to demonstrate their knowledge.

This assessment represents my ability to create and select appropriate assessments for learning. I critiqued and analyzed each item in the assessment and maximized validity by aligning questions to the Standards of Learning as well as to my actual classroom instruction and by sampling content across an appropriate range of knowledge. In addition, I controlled reliability by creating an unbiased and detailed scoring rubric for all supply-response items and an answer key for all select-response items. This Mali assessment provides a valid representation of student learning.