

World Cultural Geography
Without Maps,
How can we find our way?

*An assessment of implementing map use in Senior High School
World Cultural Geography classes*

By

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Abstract.

This article is to illustrate the importance of utilizing cartographic representations i.e. Maps aid in the increase of academic scores in regards to World Cultural Geography. The issue of using maps to better a student's comprehension of various world cultures is essential. It is my contention that the relevance of Map usage in modern World Geography classes is a must. Most seasoned Geography teachers at the high school level that I have interviewed state while compiling my data for this article, that there is a direct correlation between map usage and Geographic educational success, i.e., higher test scores.

The overall purpose of this article was to see if in fact the utilization of cartographic representations i.e. Maps aid in the increase of academic scores in regards to World Cultural Geography. The participants consisted of approximately 52 high school 10th graders. They acted as my Experimental and Control groups. By utilizing the Criterion Reference Test or CRTs, their scores or difference in scores, in my opinion, determined the relevance of Map usage in modern World Geography classes. In today's day and age, American students are graduating high school without a strong grasp of global relationships of which the United States is very much a part of. The hypothesis is that there is a direct correlation between map usage and Geographic educational success, i.e., higher test scores.

Since 2002, Omaha Public Schools in Omaha, Nebraska has mandated that the Social Studies curriculum of World Geography was to be implemented to 10th grade students' district wide. Initially, there was to be a textbook that was to be assigned to each student to reference as the semester went on to include a set of global political maps for the students to reference as well. The geography course then was reevaluated and the aspect of textbooks and maps were to be removed and the course guide would be that of a "binder" which the course would take direction from. After the first year of the new policy regarding the elimination of the text book and the maps, 10th grade student academic performance fell dramatically. The Supervisor of Social Studies for Omaha Public Schools reinstated the use of Geography text books, but declined to reinstate the use of global/political maps in the curricula. After the reinstatement of text books the score rebounded, though not as high as many expected.

In the United States as a whole, high school students upon graduation are extremely ignorant in the areas of place names, absolute / relative position of and the relationship of why a particular culture would settle in, interact with other cultures in a particular way all having to do with specific relation to where they are located on the Earth's surface when compared to other students globally, i.e. European and Asian students of the same age. Many students when learning Geographic concepts are grasping knowledge spatially, associating a certain location in relation to another. It is essential that maps be incorporated in the geographic curricula due to the important role that a map plays in the overall process of comprehending the geographic concept being taught. Utilizing a cartographic representation of an area in conjunction with a cultural concept is fundamental in rounding out the learning styles of all students in the class. The "auditory" learners benefit from the concepts being explained, the "kinesthetic" learner using their hands to manipulating the maps and books and finally, the "visual" learner has the text book and most importantly, the maps that show the "where" and the "why important" of the Geography lesson.

Utilizing various cartographic representations (maps) incorporating them into the Geography curricula is essential to boost achievement in the classroom. The implementation of maps with the Geography curricula will aid tremendously in the overall knowledge base and foundation for the students to holistically understand the world we live in. The question of this research is: does the implementation of maps (visual aids) advance the knowledge base for High School Geography students?

During my observations, it was assumed that the students involved:

1. Actively participated in all the required coursework

2. Performed on each exam/evaluated activity honestly and without bias

While researching this topic with teenagers as subjects, it is essential that I took into account the numerous factors that may limit the accurateness of the results due to absences, suspensions, and expulsions to include new students entering the classroom environment which may cause the numbers of subjects to increase or decrease. This experiment was conducted by utilizing 10th grade students assigned to 2 specific Geography classes. No other 10th Grade Geography students outside of these 2 classes in question were affected by this experiment.

Geography education over the years has become a lost aspect of Social Studies curriculum in most American high schools over the years and resources that once supported Geography are now being utilized elsewhere in Social Studies. Until recently this has been the norm. Students graduating from United States high schools and proceeding on into colleges and various institutions of higher learning are have been found to be lacking in the basis skills of comprehending the location and relevance of a nation/culture's location to fully understand Geopolitical relationships. Students especially if they attended a high school in the United States, stand far behind those students who attended high school elsewhere when it comes to geopolitical concepts due to the fact that map skill shave been lost for the American High School student because of the lack of map usage in the classroom.

The recent events in world history, especially those which involve the United States the average citizen truly has no idea of the depth and relevance certain global issues that the United States has become involved in. The United States being the last true global superpower, it is imperative that its citizens have a full grasp as to the

simplicity of “where” events are occurring. Young American military members are being sent into harms way in far away lands of which they know very little to nothing about.

This issue was most clear during the Vietnam War during the 1960’s and again during the first Gulf War in 1991, when American fighting men and citizens had never heard of these places that they were being sent to, let alone the history of the cultures that reside in these “far off” lands, where if they had known they perhaps could have had a more clear picture of the conflict for which they had been sent. Had maps been used to their fullest extent during their Geography courses in High School, many unnecessary misunderstandings could have been cleared up. The American “ignorance of the world” clearly stems from the lack of maps in the high school classrooms. This educational aspect must be changed if we as Americans wish to become true “Global Citizens”.

Over the years, the trend in Geography education has been that educators more and more are turning away from conventional, more traditional methods of instructing in the science of Geography. The traditional view of strictly teaching names of various locations to include countries, cities, notable landmarks such as in rivers, mountains, and oceans. The current trend in geographic education, is to look at the Earth and all it has to offer, such as cultures, the movement people, use of the environment, and the all encompassing interaction of all the above on one planet. More and more as the curriculum is altered to reflect the needs of the students, the implementation of maps slowly falls by the way side. Students as a whole are losing spatial orientation and the connectivity between the location and its’ unique relationship it has upon the inhabitants and the ecosystem or location. Students surprisingly are unable to function at the basic level by not knowing where a particular location is in relation to another. This building

block approach is fundamental and is being lost as class after class as the curriculum changes. It will be soon that a large population of High School graduates in our society will not be able to use, nor understand the important fundamental concept of map usage while studying Geography.

The focus of this article is to determine whether or not student performance on standardized tests will be greatly enhanced by the implementation of maps in the High School curriculum, increasing in the overall global “situational awareness” of the students, thus proving that the fundamental usage of maps is critical in World Geography education, three areas were targeted and explored:

- 1) The United States Geography Students compared to the rest of the world,
- 2) the role of reference materials, Globes, Maps, etc. in assessment, and
- 3) Map usage in the “cross curriculum” classroom.

In Omaha Public Schools between the grades of 4th and 12th, the overall assessment scores for geography have drastically declined since 1994. This has been primarily due to the lack of map and globe use in the classroom. This trend was seen throughout the entire United States. In the paper by Ruth I. Shirey, entitled How to Help Children Become Geographically Literate she comments, “Students in the U.S. know less about geography than students in other countries. Surveys show that U.S. students’ geography knowledge ranks far below that of students in Japan, the United Kingdom, Germany and Canada.” (Shiry, 1994) This entire aspect of just how “illiterate” Americans are in the realm of Geography has numerous negative impacts. Shiry concludes in her article, “How can citizens evaluate U.S. Foreign Policy opinions if they know nothing of the countries that are involved? With the borders of the world opening

up to trade more and more, American citizens are going to have to understand the pros and cons of major initiatives such as the NAFTA issues confronting North America. The same could be said of the United States' relationship with Europe, as it becomes an entire trading block rather than several small trading countries." (Shiry, 1994) Economics are not the only aspects that are relevant with regards to the study of Geography, an understanding of the natural environment must be taken into account as well.

Integrating reference materials into the curriculum is essential and is not a new concept. Up until roughly 1994, schools implemented throughout the United States a comprehensive curriculum of Geography. It was in the late 1980's that schools in the United States began to focus more on the math and sciences in order to compete with other nations and their high achievements in those areas, such as Japan and Germany. The loss of Geography knowledge in the High School began to show as significant events occurred throughout the world. Students had a hard time relating to areas that were being observed, due to the fact that they didn't know where these places were and the significance of the event was lost. In the Omaha Public Schools in 1999 rewrote their Geography curriculum and removed map usage permanently. It was felt that Geography could be taught without map usage. This trend is slowly being reversed due to the performance of the past several classes' performances on state Geography assessments.

In Marlow Ediger's paper Portfolios, Evaluation, Maps, and Globes in Geography, he goes about discussing the role of reference materials most importantly, maps in the classroom being essential:

- 1.) Map usage plays a critical role because it provides a visual element and a relationship builder.
- 2) Globes and maps spatially represent regions so that the learner can

differentiate between actual and potential conflict zones, etc. 3) Utilizing maps allows for the interaction of students within the classroom when completing assignments and perhaps in some cases, exams. 4) Numerous applications of map usage skills enhance senses that may be used elsewhere in life (Ediger 1993).

The use of maps and other references in the classroom is not only beneficial for the students, but for the teachers as well. Teachers can create activities that can be used in the classroom and out. These activities will allow the student to work at their own pace and keeps them engaged (Ediger 1993). As current events unfold around the world, students can follow the events and predict by what happened the possible global, cultural, and social ramifications of those actions by the use of maps.

The skill of utilizing maps while working cross curriculums, say from Social Studies to English (literature) as Susan Hume outlined in her paper, Using Literature to Teach Geography in High Schools, has the students applying the story line and the characters to geography more directly, to map usage, plotting the characters and story line to actual places. This aspect brings the story to life. (Hume, 1996).

Several advocates of a literature-based approach to geography especially English teachers, argue that students are more likely to understand geographical concepts if they have real people and situations to use as models (Friend and Thompson 1986.) Textbooks typically bombard the student with densely packed concepts and superficial explanations (McGowen and Guzzetti 1991, 17).

Map integration in the 21st century Geography classroom is the most important, critical, and essential action in a Geography classroom whether that classroom is in Elementary, Middle, or High School. Teaching Geography without maps is comparable

to driving a car without power steering. It is possible, but is many times harder that it needs to be and makes learning Geography more difficult and most importantly, less fun than it needs to be. Maps and Globes need to be part of the Geographic classroom as a blackboard, or desk is. Maps allow the student to put the puzzle together so to speak, it draws a clearer picture when the Geographic theme of *Place* is being taught and discussed. The integration of maps not only helps the student in the Geography classroom, but also helps the student to achieve a better understanding of other academic disciplines such as English most notably, thus bring literature and reading even more alive to the student.

Through the observation and evaluation of student work and exam scores, the expected subjects, research design, proposed instrumentation, data collection, and data analysis, I was able to get a very clear picture as to the real problem at hand regarding map use in Geography classes.

The scenario had one classroom of 10th grade World Geography students that served as the subjects for the study (Class A). This class was made up of 26 students, 16 girls and 10 boys. The students were assigned to an average 10th grade World Geography class. The second World Geography class for observation was made up of 25 students (12 Girls and 17 Boys) will act as the control group (Class B). Both classes were compatible.

I designed study that incorporated the utilization of 2 identical 10th Grade World Geography classes located within Omaha Public Schools at Omaha Burke High School. The school's socioeconomic make up is that of Middle to Upper Middle class and is largely white in ethnicity. The groups of students that will make up the study are equal,

split between the 2 classes, consisting of roughly 26 students in each class, as stated previously. Gender diversity was not a factor, so the break down of the 2 classes via gender was not addressed nor applicable.

At the onset of the study, a Geography basic skills exam will be given to establish a base line from which to gauge the knowledge of each group participating, in other words this will act as a “Pretest”. At the completion of the class (at the end of the academic semester) the same test was administered again, this time as a “Post test”. Those scores as well as the overall scores were taken into account.

The World Geography Curriculum in both classes were nearly identical with only one difference that being the absence of map usage in one of the two classes. The evaluative material will be the Omaha Public School District’s required Criterion Reference Tests (CRTs), of which 5 will be given throughout the length of the study. For each phase or CRT, the results will be scored in the same manner against the same District mandated rubric. For each of the 5 CRTs, it will be indicated by the teacher in class A, where he implemented maps in his lesson plans so that individual tracking the results was able to denote exactly when and where maps were put into the curriculum thus judging the relevance of the map usage by how the scores broke out at the completion of each CRT.

The general procedures for this particular study, it was conducted over a period of 18 weeks, or one Semester (the class is 1 semester in length). Both classes were exposed to the exact same district mandated World Geography curriculum. The only exception was that Class A was given map quizzes on a weekly basis as they go through the semester, not necessarily covering the region that Class A was studying, to also include

maps being utilized daily in conjunction with the lesson. Class B did not participate in the map quizzes, nor did they use maps with the lessons they participated in. Students had relied on the map skills that they received in previous classes/grade levels. The same unit exams were given in the same format (written/short answer) for both classes. Exam scores were recorded throughout the term.

At the beginning of the semester, both classes were given a world map quiz to evaluate the knowledge base of each student, so that it can serve as a baseline for to be used to compare along with the overall performance scores with relation to map usage at the end of the academic term. The students of both Geography classes were evaluated as to the relevance of the position globally of a particular country in relation to an event that served as the course of study, implementing map usage to justify “global policy”. This was a part of the final exam at the conclusion of the course.

The data that was collected during the length of the study which was the duration of the academic semester, focused on all evaluative exercises where maps were utilized in the Geography courses taught by both Instructors. The Criteria Reference Test (CRTs) results gauged the progress of the students and determined if there was a correlation of map use and Geographic academic success.

Throughout the duration of the study, I compared the results and tracked the deviation and change between the 2 classes. The independent variable in my study was the graded events from which the students will be evaluated. The dependent variable in the study was the Pre test that is given to both classes to act as a baseline and the post tests that were given to each class at the conclusion of the semester to see if there truly was a correlation to Geographic academic achievement and map usage. I found that the

usage of cartographic materials within the World Geography curriculum did in fact, enhance the knowledge base of the student, resulting in higher test results and a global cultural awareness. The students who had been in the class where maps had been integrated performed at a much higher level than those who had not. While interviewing them at the conclusion for the semester, they felt that they had a much better mental picture of what was occurring in other lands to include the cultural issues within those specific countries of study outlined in the curriculum. They stated that they feel as though that they would have had a harder time grasping the material, had they not been using maps to “finish the picture” as one student stated.

So, we see that it is crucial that teachers of World Geography to get maps into the curriculum so paint the mental picture, thus giving the student the best well rounded experience.

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