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**AN ANALYSIS OF THE RELATIONSHIP
BETWEEN A HIGH SCHOOL STUDENT'S
UNITED STATES TRAVEL HISTORY
AND
THEIR KNOWLEDGE OF
UNITED STATES GEOGRAPHY**

MASTER'S PROJECT

**Submitted to the School of Education
University of Dayton, in Partial Fulfillment
of the Requirements for the Degree
Master of Science in Education**

by

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University of Dayton
Dayton, Ohio
April, 1994**

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Approved by:

Official Advisor

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The author wishes to acknowledge the assistance of Dr. Fuchs and Dr. Anderson, and the patience of Carla.

DEDICATION

This study is dedicated to Laura and Lily, and the next generation of travellers.

CHAPTER I

INTRODUCTION TO THE PROBLEM

Purpose for the Study

We live in an increasingly small world. This statement, of course, does not apply to the geometry of the planet, but to the ability of one part of the planet to communicate with, travel to, and have an effect on another part. Instant satellite communication brings us news of wars, natural disasters, and political upheavals as they happen. One can drive in a car or fly in an airplane and be places that in former times could only be traveled to with much preparation and time, or maybe not at all.

Recently, numerous studies have documented the general lack of geography knowledge among American students. These studies include a state-wide study in Kentucky, administered by the geography departments of several state colleges (Brun, 1983). Similar studies in Wisconsin (Cross, 1987) and in Florida (Helgren, 1983) document the lack of competence in place-name recognition. A 1988 Gallup Poll demonstrates that this deficiency in geographic knowledge extends to the general public (Gallup Inc., 1988). This lack of geographic knowledge in an age of increasingly intricate global networks, and at a time of perceived United States leadership in global affairs is problematic.

While reviewing the literature on the subject, the writer read of a study relating travel history to place-name knowledge (Bein, 1988). This study was done with college students in Indiana.

On pondering this information, the writer reflected on his own proficiency and interest in geography. The writer traveled extensively with his family at an early age, visiting twenty-one states before graduating from high school.

The writer knows that there is a wide variety of geography competency and travel history among high school students. The writer believes that there is a positive correlation between travel history and geography knowledge.

Problem Statement

The purpose of this study was to determine the relationship between a high school student's personal United States travel history and their knowledge of United States geography.

Hypothesis

There is no significant relationship in a high school student's United States travel history and their performance on a United States geography test.

Assumptions

In order to carry out this study, a travel history questionnaire and a United States geography test was used. The writer assumed that the students answered the questionnaire honestly and took the test fairly.

Limitations

One limitation of this study was the number of students involved. The sample size was 92 students. Findings may have been more accurate if a larger number of students had been sampled.

Another limitation was the need to emphasize United States geography instead of global geography. The writer thinks that the relationship between global travel history and global geographic competency is positive as well, however the number of high school students that have traveled the globe was too small to make that study have much validity.

Another limitation was the possibility that the student did not remember where they had traveled to accurately.

Definition of Terms

United States Travel History- This term means the number of states that the student has visited from age five.

United States Geography- This term means the location of the fifty states and twenty-one prominent cities.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Factors Which Relate to the Lack of Geographic Knowledge

As I reviewed the literature for factors relating to the geographic literacy of Americans today, I came across two major themes concerning why today's students do not seem to be doing well. The first was a de-emphasis on geography in the last forty years and the second was that there seems to be a difference in geographic literacy between the sexes and between different ethnic groups.

Following the Korean War, Geography, as a separate subject, lost ground in the secondary school curriculum. History, civics, and geography had each been taught apart from each other, allowing time and a rational to concentrate on geography because it was a subject unto itself. In the middle 1950's there was a shift from separate subjects to social studies, which combined the three in the curriculum. As a result, geography was squeezed out in many classrooms as history expanded (Stoltman, 1989).

Related to this lack of curricular emphasis is a problem with some social studies textbooks. In trying to combine history, civics, and geography in a textbook, studies have shown that there is a lack of consistent application of geographic concepts and place name literacy. In two 1988 studies there were several findings which have implications in geography education. First, place name competency is not a stated goal, skill, or objective of

many currently used textbooks. Secondly, drill and mnemonic devices are not activities suggested for teaching place name vocabulary. There also seems to be a lack of focus upon a manageable number of places to use as a point of reference. As the grades progress, more and more place names are alluded to, but not in a manner which is connected to a core of places already learned (Smith and Larkins, 1988; Haas, 1988).

There seems to be a difference in geographic competency based on what sex the student is. A nationwide study was conducted among one thousand eighteen undergraduate students from across the United States. Males consistently outperformed females on tests of geographic knowledge. The difference was not large in magnitude but appeared to be quite general. One of the related conclusions was that although there was not a difference in travel experience between the sexes, there possibly was a difference in the emphasis on map reading skills and knowing where one is going. Men normally drive the cars. This image of sexual roles might be filtering down to young males and females (Beatty and Troster, 1987; Maddux, 1982).

A similar difference was found in the performance among different ethnic groups on a study done in 1988. In this study, having to do with travel and geographic knowledge, African-American students were outscored by Caucasian, Hispanic, and Asian students. In this study, the conclusion was that this difference was due to what amounted to a travel history difference. However, the author of the study did not correlate ethnicity with travel history, or

discuss the cultural or socioeconomic differences in the groups tested (Bein, 1988).

In this same study the author interpreted the results of his testing and concluded that geography is an experiential discipline. He says that those who have been more places have an advantage when it comes to geographic competency.

With all of the subjects which must be covered in today's curriculum, one might ask why geography is important. Why is there a need for improving geographic competency and increasing emphasis on the subject?

The Need for Improving Geography Competency

One reason for improving geographic competency is because students who enjoy a good geography course in secondary school receive a firm basis for subsequent learning as global citizens. The fact is that our world is becoming increasingly more unified as a single economic community. Continued ignorance about other places will produce a generation of citizens poorly prepared to understand, let alone compete in a complicated, interdependent world market place (Marran, 1989).

Our surroundings have been made smaller by the communication and transportation revolution. Our country has an increasing number of immigrants. The nature of citizenship is beginning to transcend traditional allegiances defined by state and national boundaries. We must build a broadly integrated sense of place, not only of our local and national surroundings, but of the global community (Mason, 1989).

If geography is important, what activities are working well in improving competency. A review of the literature suggests several avenues.

Factors Relating to Improving Geographic Competency

One appropriate way of helping students in their geographic competency is by giving them meaningful assignments when they must miss school during the school year as they travel with family. These assignments include requiring the student to keep a daily journal. This journal would involve keeping records of places visited, traffic patterns, work vehicle types, clothing styles, accents, wildlife seen, weather experienced, and discussions with people from along the way. The route of the trip would be traced on a map and keyed into the journal. Representative souvenirs would be collected from along the way such as postcards, brochures, rocks, or leaves. This focusing on where one is allows for a more solid link between travel and geography (Agee and Agee, 1984).

Another way of improving geographic knowledge, this time for students not able to travel is by experiencing simulated travel activities. A study done by Morlan in 1989 concluded that classroom activities that are arranged to mimic travel increase students geographic competency. These activities included selecting a destination and determining the distance. Travel information such as routes and stops were compiled. If the destination was appropriate, airline ticket information was collected. The student used an atlas and almanac to determine what

would be seen. All of these contributed to an increase in geographic skills in the study group (Morlan, 1990).

CHAPTER III

PROCEDURE

Subjects

The subjects chosen for this study were ninety-two students from five high school science classes. They ranged in age from fourteen to eighteen years old and were freshman through senior grade levels.

Setting

School- The subjects attended a ninth through twelfth grade public high school. The school enrollment is approximately one thousand and eight hundred students.

Community- The school system was in a suburban setting with students of all socioeconomic classes attending.

Data Collection

Construction of the Data Collecting Instrument- The study consisted of two instruments. The first was a map of the United States with only the political boundaries shown. Each state was numbered. In addition there were twenty-one prominent cities identified on the map by letters. At the bottom of the map were the names of the fifty states in alphabetical order and the cities were listed in random order (appendix A). Each student was also given an answer sheet for recording the seventy-one answers (appendix B).

The second instrument was a United States travel history questionnaire (appendix C). Students were asked to fill in all states they had visited from five years of age on. This five years old limit was thought to ensure that the travel experience occurred at a meaningful age.

Administration of the Instrument- The geography test was given first, in the classroom setting. Students were given as much time as needed to finish the test. All relevant maps were removed from the walls of the room.

The travel history questionnaire was given six days later, again in the classroom setting. In some cases it was necessary for the student to take the instrument home to ask for their parent's aid in remembering what states had been visited. In all cases the questionnaires were returned to the researcher.

CHAPTER IV

Results

Presentation of the Results

Upon completion of both parts of the study, results were compiled (Table 1). Since the study resulted in a combination of interval data from the geography test, and nominal data from the travel history survey, the chi square was used as the means to test the relationship.

TABLE 1

RESULTS OF TEST SCORES AND SURVEY SCORES

Std. #	Test Sc.	Srvy. Sc.						
1	69	24	32	11	10	64	14	13
2	66	11	33	51	20	65	42	11
3	56	19	34	38	10	66	32	23
4	70	16	35	24	12	67	44	12
5	64	18	36	54	11	68	53	21
6	27	36	37	55	13	69	68	19
7	65	21	38	42	10	70	67	22
8	39	22	39	25	19	71	20	09
9	55	15	40	71	20	72	71	11
10	61	14	41	71	19	73	67	09
11	67	13	42	69	09	74	65	08
12	63	29	43	65	12	75	71	33
13	58	17	44	63	14	76	71	13
14	57	17	45	46	33	77	68	23
15	49	17	46	47	21	78	60	37
16	10	13	47	33	11	79	64	14
17	68	11	48	35	21	80	65	12
18	69	08	49	65	25	81	69	08
19	23	14	50	18	14	82	67	18
20	64	14	51	30	10	83	70	15
21	45	12	52	14	03	84	69	20
22	63	15	53	47	22	85	69	14
23	16	12	54	39	05	86	69	14
24	69	14	55	66	16	87	71	22
25	18	18	56	41	15	88	55	11
26	45	08	57	55	18	89	54	12
27	65	10	58	71	19	90	12	09
28	69	31	59	30	09	91	52	04
29	62	18	60	50	12	92	55	23
30	45	14	61	59	13			
31	23	03	62	33	14			
			63	61	28			

The following 2 X 2 table was set up to display the results.

TABLE 2
TEST SCORES VERSUS QUESTIONNAIRE SCORES
TEST SCORES

		HIGH	LOW
QUESTIONNAIRE SCORES	MANY	24	17
	FEW	22	29

The following criterion were used for determining the cells of the table.

Test Scores-HIGH- Above the median of 56.5
LOW- Below the median of 56.5

Questionnaire scores-MANY- More states visited than the mean of 16.5
FEW- Less states visited than the mean of 16.5

Each pair of scores was entered into the proper cell based on where the pair fit in the combination of categories.

The computation of chi square yielded a result of 2.16.

Discussion of the Results

The value of chi square at the .05 significance level and 1 degree of freedom was found to be 3.84. The chi square of 2.16 from the study therefore falls within the area of acceptance of the null hypotheses. This indicates that according to this study, no significant correlation exists between a student's United States geography place name competency and the amount of traveling they have done. The chances are ninety-five percent that any apparent relationship is due to chance or sampling error.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Numerous studies have recently documented the lack of geography knowledge among American students. This lack of knowledge at a time in which global relationships are becoming more intricate and important is a cause of concern for many people.

One of the factors relating to poor geographic competency was the student's background. While reviewing the literature on the subject, the writer read of a study relating travel history to place-name knowledge. On pondering this information, the writer reflected on his own travel history, and proficiency and interests in geography. This study dealt with that relationship.

The purpose of this study was to determine the relationship between a high school student's personal United States travel history and their knowledge of United States geography.

The following hypothesis was stated. There is no significant relationship in a high school student's United States travel history and their performance on a United States geography test.

Five high school classes, with students ranging in age from fourteen to eighteen years were given two instruments. The first was a travel history questionnaire. The second was a United States place-name geography test. Each student's results were matched up and the relationships were tested using the chi square.

Conclusions

Students who had done more traveling were expected to score

better on the geography test than those who had traveled less. In other studies, geography was shown to be an experiential discipline. In this study no such relationship was shown to exist.

One of the factors relating to the results was that the subjects scored better on the geography test than the writer had anticipated. The median score was eighty-one percent, with twenty percent of the subjects missing two or fewer of the seventy-one place names on the test. This suggests that geography must be being emphasized and dealt with well in the setting where the study was done. Although there is no geography course in the high school curriculum, the skills are apparently being covered in other classes. Elementary and junior high school coursework must be addressing the subject and having a carry-over effect.

With such high scores overall, evidently personal travel history had less of an impact. The major factor related to geography knowledge with these subjects must be their educational experiences.

The author does not conclude that the lack of geography skills is not an issue among the subjects. Twenty-four percent of the students failed to score sixty percent or higher on the place-name test. However, these students scored at or close to the median of fourteen on the travel history questionnaire.

Another conclusion of the study is that travel with the family, at a young age, may not influence the traveler if the parent does not emphasize the geography of where the family is going. Many students could not recall easily where they had been,

suggesting to the writer that at least that part of the experience, the "where" part failed to transfer to the student's memory. Quite possibly the students had other qualitative memories of the experience, but the spatial part was not retrievable.

The author believes that quality travel experience, emphasizing all aspects of the trip, can be one factor in increasing a student's geographic competency.

Recommendations

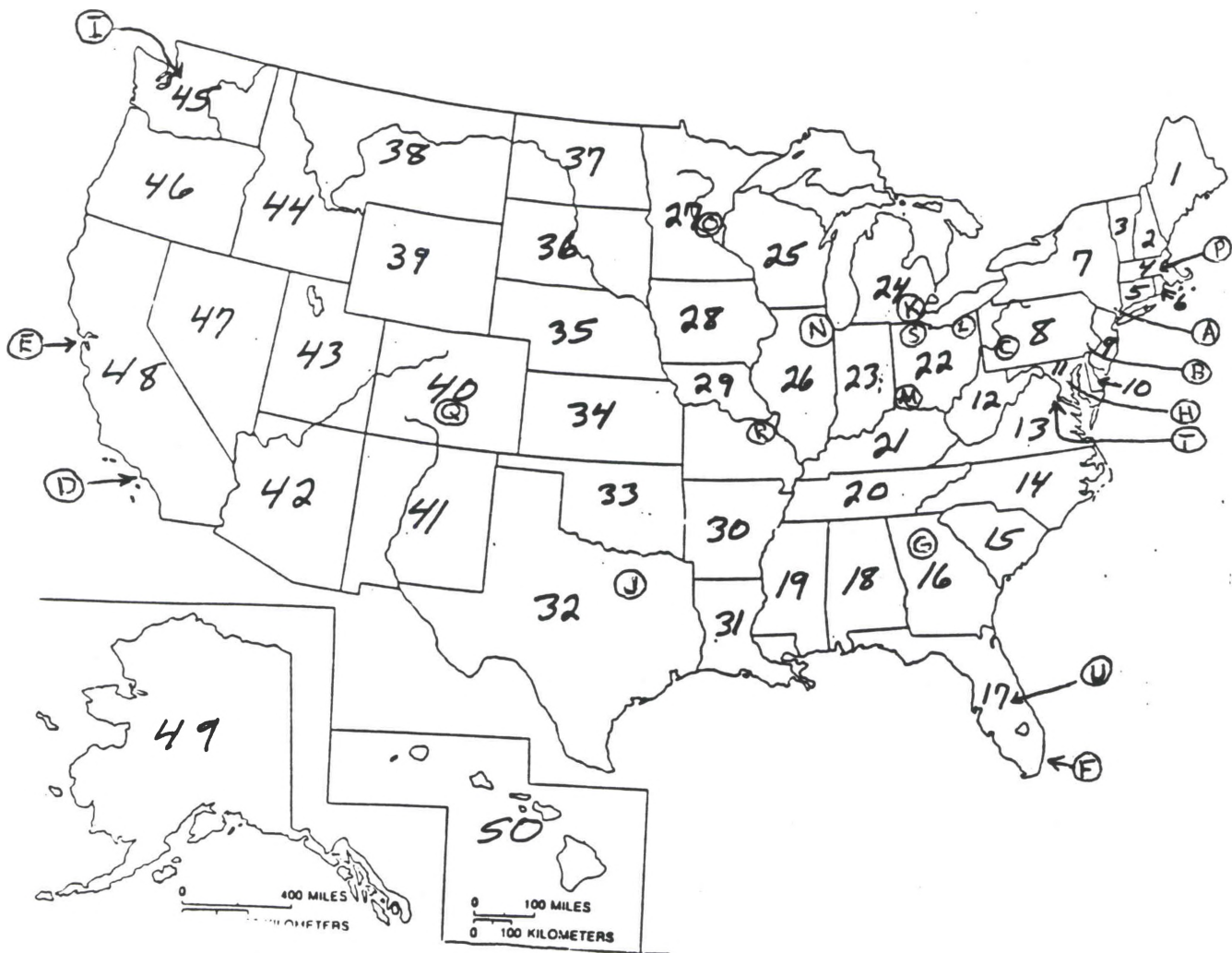
The writer recommends that further studies be done exploring the relationship between travel history and geography skills.

A larger study, covering more subjects in more settings might prove instructive. Increasing the age range of the subjects might be helpful.

There are other areas of geographic knowledge that could be tested. Possibly instead of testing what a place's name is, instruments could be written relating to what an area looked like, its climate, vegetation, and topography.

Studies could be conducted to isolate factors pertaining to a subject's actual travel experience. The amount of time spent in a state, and activities such as visiting relatives, sightseeing, or just passing through, could be included on the survey and correlated with geography competency to see if there is a relationship.

APPENDIX A



Alabama	Louisiana	Oklahoma
Alaska	Maine	Oregon
Arizona	Maryland	Pennsylvania
Arkansas	Massachusetts	Rhode Island
California	Michigan	South Carolina
Colorado	Minnesota	South Dakota
Connecticut	Mississippi	Tennessee
Delaware	Missouri	Texas
Florida	Montana	Utah
Georgia	Nebraska	Vermont
Hawaii	Nevada	Virginia
Idaho	New Hampshire	Washington
Illinois	New Jersey	West Virginia
Indiana	New Mexico	Wisconsin
Iowa	New York	Wyoming
Kansas	North Carolina	
Kentucky	North Dakota	
	Ohio	

Orlando
 Toledo
 New York City
 Cleveland
 Seattle
 Pittsburgh
 Philadelphia
 Los Angeles
 Atlanta
 Boston
 Cincinnati
 Baltimore
 St. Louis
 San Francisco
 Washington D.C.
 Minneapolis
 Dallas
 Chicago
 Denver
 Detroit
 Miami

APPENDIX B

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CODE _____

A. _____
B. _____
C. _____
D. _____
E. _____
F. _____
G. _____
H. _____
I. _____
J. _____
K. _____
L. _____
M. _____
N. _____
O. _____
P. _____
Q. _____
R. _____
S. _____
T. _____
U. _____

APPENDIX C

_____ =TOTAL NUMBER OF
STATES VISITED

CODE _____

Use the map on the below right as a reference. On the list of states, cross out any state that you have traveled to or through, since you were five years old. Ohio is already crossed out. Then, please count up the number of states and put the total in the upper left corner. If you need to take this home and ask where you have been, I need it back tomorrow.

- | | | |
|----------------|--------------------|---------------------|
| 1. Alabama | 18. Louisiana | 35. Ohio |
| 2. Alaska | 19. Maine | 36. Oklahoma |
| 3. Arizona | 20. Maryland | 37. Oregon |
| 4. Arkansas | 21. Massachusetts | 38. Pennsylvania |
| 5. California | 22. Michigan | 39. Rhode Island |
| 6. Colorado | 23. Minnesota | 40. South Carolina |
| 7. Connecticut | 24. Mississippi | 41. South Dakota |
| 8. Delaware | 25. Missouri | 42. Tennessee |
| 9. Florida | 26. Montana | 43. Texas |
| 10. Georgia | 27. Nebraska | 44. Utah |
| 11. Hawaii | 28. Nevada | 45. Vermont |
| 12. Idaho | 29. New Hampshire | 46. Virginia |
| 13. Illinois | 30. New Jersey | 47. Washington |
| 14. Indiana | 31. New Mexico | 48. West Virginia |
| 15. Iowa | 32. New York | 49. Wisconsin |
| 16. Kansas | 33. North Carolina | 50. Wyoming |
| 17. Kentucky | 34. North Dakota | |



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