Report to the Joint Legislative Education Oversight Committee

Study of Effectiveness of Geography Education in Middle and High Schools HB 2431 Studies Act of 2008, Section 23.1

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What is Geography Education?

Today's social, cultural, economic, and civic demands mean that students will need the knowledge, skills, and understanding to make informed decisions about the relationship between human beings and their environment. Our young people must acquire and learn the knowledge, skills, and attitudes that will prepare them to be competent and responsible citizens throughout their lives. Geography is a vital 21st century skill. Geography instruction needs to begin at the elementary level to lay the content and skills foundation for middle and high school students to be academically and globally competent.

According to the North Carolina Standard Course of Study, geography gives students a spatial perspective. The goal of geography is to produce an informed person who sees meaning in the arrangement of things in space and applies a spatial perspective to life situations. Technological advances connect students at all levels to the world beyond their personal locations. The study of people, places, and human-environment interactions assists learners as they create their spatial views and geographic perspectives of the world. Analysis of tensions between national interests and global priorities contributes to the development of possible solutions to persistent and emerging global issues in fields such as health care, economic development, environmental quality, universal human rights, and others.

Elementary Grades

In the early grades, young learners draw upon immediate personal experiences as a basis for exploring geographic concepts and skills. Students also express interest in things distant and unfamiliar and have concern for the use and misuse of the physical environment. Students study how basic technologies modify our physical environment. Learners become aware of how they are affected by global events through both exposure to media as well as first hand experiences.

Middle Grades

During the middle school years, students relate their personal experiences to happenings in other environmental contexts. Appropriate experiences will encourage increasingly abstract thought as students use data and apply skills in analyzing human behavior in relation to its physical and cultural environment. In the middle years, learners can analyze the cultural complexities and interactions among states and nations as they respond to global events and changes.

High School

Students in high school are able to apply geographic understanding across a broad range of fields, including the fine arts, sciences, and humanities. Geographic concepts become central to comprehension of global connections as learners expand their knowledge of diverse cultures, both historical and contemporary. The importance of core geographic themes to public policy is recognized and should be explored as students address issues of domestic and international significance.

The National Council for Geographic Education:

According to the National Council for Geographic Education, geographers study space and place. They are interested in recognizing and explaining how natural processes and human activities shape our world. Geography is often identified with memorizing facts about rivers, capitals, products, and other

seemingly trivial things. Geographers, however, are more concerned about understanding why things are located where they are and how they are related to the location of other features, knowledge which allows us to see how historical processes and present activities influence places. If our understanding is deep enough we can anticipate future developments and plan for it.

HB 2431 Studies Act of 2008, sec. 23.1

The Studies Act of 2008 (House Bill 2431, Section 23.1) requires the Department of Public Instruction to study the effectiveness of geography education in middle and high schools and to consider potential changes to geography education. The Department of Public Instruction shall report the results of this study, including any recommended changes, to the Joint Legislative Education Oversight Committee on or before January 15, 2009.

In response to this Studies Act, a K-12 Zoomerang Survey was conducted from September 15, 2008, through October 15, 2008. The Zoomerang is a web-based survey tool to help research, analyze and evaluate information. The K-12 Geography Zoomerang Survey was administered to teachers, administrators, principals, and superintendents via listservs, newsletters and the Department of Public Instruction's Communications Division to collect data regarding geography education. Seven hundred twenty-one respondents completed the survey.

.A breakdown of the responses is as follows:

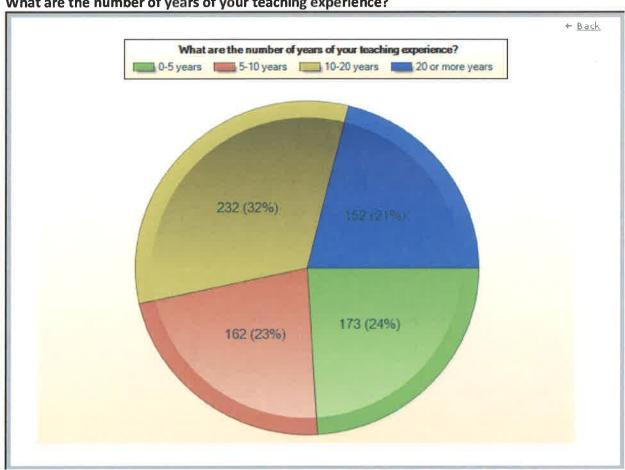
Question 1 Identify your position and area of responsibility. Check ALL that apply.

Principal	9	1%
Assistant Principal	8	1%
Lead Teacher	107	15%
Department Chair	42	6%
Academic Coach	17	2%
Pre-Kindergarten Teacher	3	0%
Kindergarten Teacher	76	11%
First Grade Teacher	85	12%
Second Grade Teacher	107	15%
Third Grade Teacher	88	12%
Fourth Grade Teacher	122	17%
Fifth Grade Teacher	130	18%
Sixth Grade Social Studies Teacher	22	3%
Seventh Grade Social Studies Teacher	28	4%
Eighth Grade Social Studies Teacher	26	4%
World History Teacher	18	3%
Civies and Economics Teacher	20	3%
U.S. History Teacher	22	3%
Social Studies Elective (Please list which you teach)	13	2%

Summary

The highest rate of response came from 4th and 5th grade classroom teachers while principals and assistant principals were least likely to complete the survey.

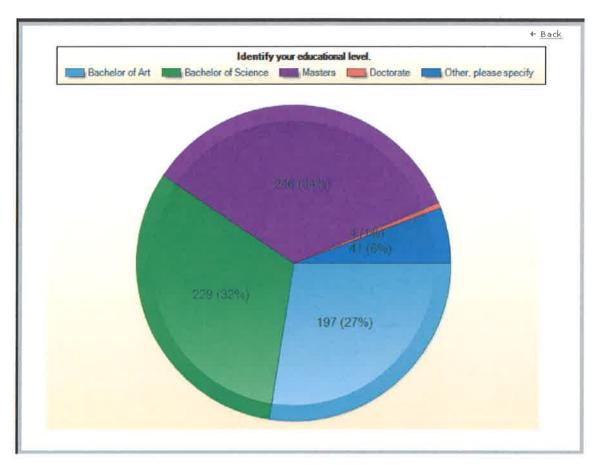
Question 2
What are the number of years of your teaching experience?



719 participants responded to this question.

Respondents:	No. of years
173 (24%)	0-5 years
162 (23%)	5-10 years
232 (32%)	10-20 years
152 (21%)	20 years or more

Question 3 Identify your educational level.



Out of the 717 respondents to the educational level there were:

Respondents:	Educational Level
197	Bachelor of Arts
229	Bachelor of Science
246	Masters
4	Doctorate
41	Other

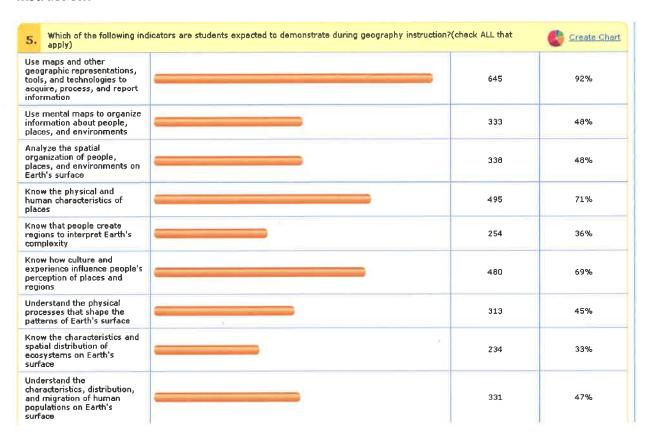
How do you use the geography goals and objectives in the North Carolina Social Studies Standard Course of Study (NCSCOS) when you plan instruction?

Over 617 respondents provided comments to question number 4. Some of these comments are listed above. Most of the respondents indicated that they use the *North Carolina Standard Course of Study* (NCSCOS) for planning, instruction, pacing guides and benchmarks. The following statements serve as examples of recurring responses:

- I use it to develop my essential questions and to focus my instruction.
- I integrate the geography goals with other subjects.
- I use the integrated approach. Look at the five themes of geography at play in the history of the nations/periods we study—make the connection between geography and history. Teach students geography skills like map reading and general knowledge about the globe, location, terminology, etc.
- Most goals are taught within the context of other teaching areas and as current events are brought into the daily learning arena.
- Data driven instruction to address NCSCOS goals.
- I examine each standard for Competency 1 (Geographic Concepts) to determine resources that will bring this goal to real-life, concrete application. I incorporate outline maps, Internet resources, Brain Pop Videos, creating models of physical maps using clay/dough, etc.
- As principal, I work with teachers to provide them with the resources necessary to deliver integrated geography goals into their social studies instruction.
- I try to implement meaningful experiences for my students by giving them opportunities to explore and understand the aspects of geography on a local level. Also, we use charts and maps to enhance learning.
- I use them to make sure we're meeting benchmarks on time. Because we adopted a new SS curriculum this year, my focus is mostly on this product. The NCSCOS keeps me on track with NC requirements
- They are the driver of my instruction as well as the focus of my meetings when I meet with my grade level team/PLC.
- I use them to plan scope and sequence.
- I use them as a "jumping off" point for all areas of the curriculum. In addition, I use them to plan differentiated assignments/projects/learning experiences.
- Not at all, but I do geographic related activities in my classes.
- In planning and assessments... incorporate across the curriculum...a lot of hands on.
- I try to use the 5 themes of geography in as many lessons as possible rather than listing the NCSCOS objectives.
- We have unwrapped the standards. Our team uses the goals to cover broad pieces of time, not just the individual large goals.
- I am not very clear on what is expected for Social Studies. It is put on the backburner at my school.
- To set my goals and drive my instruction.
- I use them to guide my planning and then supplement with any other materials I need from the media center or the local library. Usually there is more than enough in our adopted series.
- Honestly, social studies is on the "back burner" since so much of our focus goes to math and reading. I do however try to incorporate social studies into my reading instruction when possible.
- Minimally.
- We use the NCSCOS to decide what the most important geography chapters in the textbook are, to decide on any projects, and to decide what we need to implement.
- I try to incorporate them into writing and reading as much as I can since they are so broad and numerous, and it is difficult to cover them all.

Question 5 (Part A)

Which of the following indicators are students expected to demonstrate during geography instruction?



Question 5 (Part B)



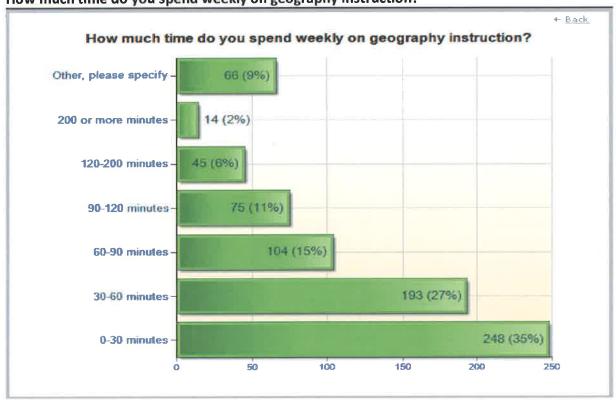
Summary

Participants were asked to indicate what was expected of students during and after geography instruction. Almost all respondents felt that students should be able to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.

Response in the other category included:

- Landform names, community location, and interpret maps
- Knowledge of individual home, school, and state
- Five themes related to the six essential elements
- Earth's landforms and bodies of water
- Differences in map uses, such as a store map, road map, etc.
- Understand their family's heritage impact on North Carolina

Question 6
How much time do you spend weekly on geography instruction?



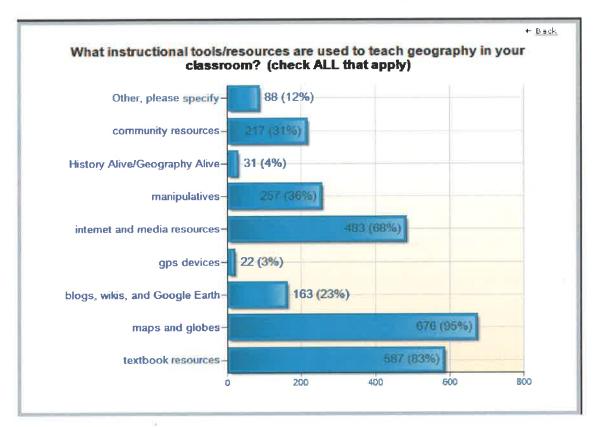
There were 645 respondents to this question:

Respondents	Time spent
248 (35%)	0-30 minutes
193 (27%)	30-60 minutes
104 (15%)	60-90 minutes
75 (11%)	90-120 minutes
14 (2%)	200 or more minutes
66 (9%)	Other (beside chart above)

As indicated from the chart above and information in this survey, a majority of elementary students receive less than an hour per week on geographic education. Sixty-six respondents in the *other* category included:

- Weeks at a time, alternating science/social studies
- It is integrated and not taught at a separate time.
- 18 weeks of 200 minutes weekly
- Not consistently each week, depends on theme.
- Implemented within social studies

Question 7
What instructional tools/resources are used to teach geography in your classroom?



The participants could respond to more than one of the choices listed above. Almost all of the participants (95%) used maps and globes as instructional tools. The next highest choice was the use of textbook resources with 83%. Only 3% used GPS devices and 4% used History Alive/Geography Alive.

Other responses included:

United Streaming Videos Trade/picture books Time Life for Kids Newspapers Active Boards Daily Geography

Which of the following geography courses did you take in college?

World Geography	414	67%
Cultural Geography	126	21%
Political Geography	98	16%
Introduction to Geography	281	46%
Principles of Geography	73	12%
Urban Geography	23	4%
Cartography Geography	9	1%
Economic Geography	50	8%
Regional Geography	64	10%
Geography of Africa	31	5%
Geography of Latin America	24	4%
Geography of the South	22	4%
Other, please specify View Responses	106	17%

Summary

<u>Participants</u>	Geography College Courses
414	World Geography
281	Introduction to Geography
128	Cultural Geography
98	Political Geography
73	Principles of Geography
64	Regional Geography
50	Economic Geography
31	Geography of Africa
24	Geography of Latin America
23	Urban Geography
22	Geography of the South
9	Cartography Geography

Respondents could choose more than one option. Sixty-seven percent (414) of the participants took *World Geography* and forty-six percent (281) took *Introduction to Geography* in college. Only one percent took *Cartography Geography*. Some *other* responses were:

- Human Geography
- Physical Geography
- North Carolina Geography
- None
- Geography of Asia
- Social Studies in the elementary grades
- Geography was integrated in history classes

Did your college course of study equip you to teach geography effectively? Explain why or why not.

603	Responses	
Yes (4	14%)	265
No (56%)	338

Comments from the "yes" responses included:

- Yes, but geography is a changing topic and must be kept current. Geography has changed over the last twenty years.
- I think I was sufficiently prepared but I feel the need to constantly study to keep up with changes in political and economic geography.
- In some instances the courses helped, however, more training and coursework would be beneficial.
- I learned a great deal of geography, but little about techniques/tools for teaching the subject.
- Yes, but I still have to study my lessons and do background studying on what I am going to teach. I
 would have liked more.
- Yes, but if it doesn't, I have resources available to help.
- As far as U.S. Geography is concerned, I am prepared. However, I would have to re-teach myself geographical features of other countries if I taught World History, for instance.
- I have been teaching for a while. When I went to school, geography was taught as a separate subject. I would say that I am capable of teaching geography effectively; however, time is an issue. I find myself either not getting through all of the objectives or touching on each in too superficial a manner.
- Yes, my college courses taught me how to teach each standard and understand it and then implement the objectives effectively in my lessons.

Comments from the "no" responses included:

- No, on my plan of study there were a lot of history classes and nothing really pertaining to actual geography.
- No, it was purely lecture and I tuned it out.
- No, they were too general and did not apply to teaching it at a child's appropriate developmental level.
- No, they did not effectively teach ways to teach geography on an elementary level.
- No, I did not have anyone to teach me how to teach geography.
- No, the history classes I took in college were not based primarily on geography.
- No, I have learned most of my knowledge about geography through my teaching of concepts.
- No, I did learn to read maps; however, geography changes so you need to be current with our ever changing world.
- I would have liked to have been shown various methods for teaching geography. Geography is not emphasized at all.
- Not really, most influence/stress was put on reading, writing and math.
- Not hardly, one course sufficed for all areas of social studies.
- Not so much, I learned more from veteran teachers and their resources.
- Not really, they supplied knowledge of content (pedagogy) but did not equip me to teach the discipline.

Summary

Two-hundred sixty-five participants felt that the college course of study they took equipped them to effectively teach geography. Some responded that the courses helped them to understand the standards and how to implement the objectives. Three-hundred thirty-eight participants felt that their college course of study did not equip them to teach geography effectively. Survey participants felt additional professional development would help them become better teachers for the 21st century.

Since college, what additional professional development have you had in the area of geography?

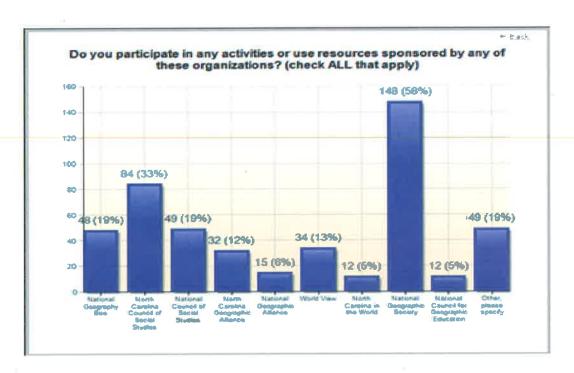
618 participants responded to this question. The following list reflects professional development opportunities teachers have received in geography education:

- Workshops in the county
- N.C. Social Studies Conference
- N.C. Geographic Alliance Workshops
- DPI sponsored social studies workshops
- World View Conference
- National Geographic Society
- Master's Program with graduate classes using Google earth and Google maps
- Textbook training
- International Baccalaureate programs
- Co-workers, websites, discussions
- Independent reading, study and travel
- I have attended staff development in the area of social studies which usually includes geography. (workshop on integration of literacy and geography) Geography is not usually a separate workshop and it should be.
- Not much is offered in my area of NC, and the school does not have funds available.
- Numerous in-service and personally arranged workshops and other learning opportunities
- NCCAT, workshops
- Workshops with the 5 themes of geography
- Study on the use of GPS systems
- Wake County Public School System professional development class

Summary

Of the 618 participants, there were 434 respondents who indicated that they had received no professional development since college. Seven respondents reported that they had received very little professional development since college.

Question 11 Did you participate in any activities or use resources sponsored by any of these organizations?



Participants	Use of Activities/resources from organizations
148 (58%)	National Geographic Society
84 (33%)	North Carolina Council of Social Studies
49 (19%)	National Council of Social Studies
48 (19%)	National Geography Bee
34 (13%)	World View
32 (12%)	North Carolina Geographic Alliance
15 (6%)	National Geographic Alliance
12 (5%)	North Carolina in the World
12 (5%)	National Council for Geographic Education

Some of the other responses participants used as resources were:

- People to People Ambassador Program
- Journey North

Using your own words, describe geography education.

The survey participants were asked to describe geography education using their own words. There were 495 respondents. The following is a sample of responses:

- Geography education is necessary because in order for students to be successful in a global economy
 and multi-cultural America they must know what is going on in other places in the world and how it is
 interconnected.
- Instruction that gives students the tools to be able to read maps effectively, know and organize the continents and their political divisions, as well as a broad understanding of how the world is connected historically and politically.
- Geography education is often a student's first "window on the world." It enables students to
 understand our world, its processes and patterns; and it develops spatial thinking and awareness.
- Geography education includes interpreting maps, globes, and their tools, applying these skills to a
 variety of maps. Understanding how geography affects humans, economics, technology, and the
 development of cultures.
- Educating students about the location of a place, the human and physical traits of a place, movement to and from places, and how humans interact with their environment.
- To help children understand what a map is, to learn about the different ecosystems of our world and the dependence they have on one another. The diversity of the people in our world, how the location of where they live affects their lives and the different variety of animals and plants that live there. In addition to the basic concrete lessons of maps and globes, geography lessons help all students understand that we are not the "center" of the world and all people are important and interesting.
- To educate the student regarding the world around us, starting from a personal perspective, locals, and moving outward, global. To understand cycles and cause and effect circumstances that humans create and have the ability to change. Regions have a certain look and usually dictate the population, locally and globally.
- Geography education is necessary and if taught correctly, is a truly all curriculum class. The use of technology should be a major focus for geography.
- How the Five Themes of Geography relates to our lives. (Covers everything) The break down of Physical Geography shaping the earth (Forces), Cultures of People (What is Culture), How does culture affect the world?
- Geography is a must for every student to become proficient in living day to day.
- Geography education enables students to become knowledgeable about their world and how to
 navigate it. Students not only learn to use maps, atlases, and other tools to study places, but they also
 develop mental maps of the major regions and places of the world.
- I believe that students need to become prepared to see themselves as citizens of the world. With an increasingly globalized economy, with the immediacy of information and the accessibility of travel (actual and virtual) it is important for them to gain an understanding of their own participation in what Marshall McCluen called "The Global Village."
- Teaching the students to identify the world around them, why the world is the way it is, why the
 countries formed the way they did, and how their locations often influenced their cultures and the way
 one country interacts with another.

Geography instruction focuses on the 5 themes of geography to help children understand the importance of places, location, resources, people, and movement in different areas of the world.

Summary

Many teachers long for time to teach not only geography education, but social studies as a whole. They all echoed the sentiment that social studies education must begin at the elementary level to prepare students for the 21st century.

What do you find to be the most challenging topics in teaching geography?

There were 503 participants that responded to this question. Some of the responses were as follows:

- Economic connections to geography
- How small and sheltered students' perspectives of the world are
- Religions
- Landforms
- Analyzing past movement of people, goods, and ideas
- Time zones, latitude and longitude
- Difference between countries, continents, states, and cities
- Impact of geography on history
- Distribution of people
- Importance of map skills when students have been exposed to digital devices such as a GPS
- Environmental and cultural factors that impact geography
- Map and globe skills
- World cultures and location of countries
- Abstract concepts, such as how early settlers changed the land, or how it has changed now
- Scarcity
- Political topics
- Cultural diversity
- Cardinal directions
- Making it interesting and hands-on
- Location and topography
- The difference between place, location, and region
- Staying up to date with technological advances, resources, and materials
- Spatial relationships
- Helping students make necessary connections between what is learned in the classroom and the real world
- Limited technology
- Economic interdependence
- Absolute and relative location
- Geopolitical topics
- Community changes over time
- Abstract concepts that go beyond the physical concepts of the town students live in
- Population distributions
- Students not being familiar with their own environment, and some have never been outside their neighborhoods
- Meridian
- Government
- Students not having basic or prior knowledge
- Little or no background for students, so I must start from the basic level leaving no time to progress to more in-depth understanding

Summary

When asked to reveal the most challenging topics to teach in geography, popular responses consisted of landforms, latitude and longitude, cultural diversity, economic interdependence and limited technology. Some of the respondents felt that students' lack of social studies knowledge, weak geography foundations, lack of interest, limited time and lack of up to date resources/materials, (such as textbooks, globes, maps, atlases, visuals, etc.) were challenges for adequate instruction.

Please take this opportunity to share any suggestions you think would be helpful to North Carolina Department of Public Instruction (NCDPI) in planning geography professional development and support documents.

There were 281 suggestions from the respondents that would be helpful for NCDPI in planning geography professional development and support documents. Some of the responses were as follows:

- More hands on materials and make and take workshops
- Newsletters and podcasts
- Provide resources (lesson plans) for teachers
- Professional development in new tools, innovations and resources to use in the instruction of geography
- Available field trips
- Make teachers aware of the professional development opportunities available through the NC Geographic Alliance and the NC Council for Social Studies.
- · Ideas for project based units that could be modified
- Hands-on materials and materials on the Internet and Webquest
- Offer geography based workshops and have more training readily available to educators
- Develop hands-on kit based professional development including technology.
- Provide more staff development such as Teacher Academy on specific geography topics.
- Narrow down and be more specific on what should be taught.
- Be specific to grade levels or grade level bands.
- Provide hands-on ways for teachers to "try things out" or see effective models at work.
- Provide ways to integrate throughout the curriculum.
- Lists of trade/picture books that can be used to teach geography topics.
- Resources (Internet and print) for each geography objective.
- Utilize NC Learn as a place to publish lesson plans linked to objectives.
- More interactive ideas and books to share to make geography more lively and exciting
- Offer a grade level Internet training for teachers.
- Staff development to model how teachers can integrate social studies and geography into literacy
- Another opportunity like N.C. Trek, focusing on specific geography of NC
- Provide real learning experiences for the participants to take back to their classrooms to use.
- A weekly e-mail that would give basic facts teachers could share with their students
- Include websites that would allow teachers to do reading to increase their knowledge base and have
 activities for the students.
- Educate teachers about resources on-line.
- Fifth grade curriculum is too vast. It is too much information for 10-11 year olds. The curriculum needs to be condensed with lesser goals per grade level.
- Video resources and more manipulatives
- Plan and advertise opportunities.
- More interactive tools beyond maps and globes

Summary

The suggestions provided by respondents are helpful in guiding professional development and support materials at the state and local level.

Recommendations from the Department of Public Instruction regarding the teaching of geography:

No recommendations requiring new policy were identified; however, educational practice regarding social studies will be addressed through existing processes.

This survey reveals that the lack of adequate attention to the teaching of geography is a major challenge for classroom teachers. The N.C. Department of Public Instruction's K-12 Social Studies team will address these concerns regarding geography education in the following manner:

- Incorporate the K-12 National Geography Standards into the new Essential NC Standard Course of Study for Social Studies.
- Integrate the use of engaging technology into sound instructional practices and promote geography education webinars and partnerships with geographic organizations, colleges and universities.
- Prepare specific online modules for teaching 21st Century geography. The online modules will
 promote a more geographically informed student. Specific topics of online modules will
 highlight National Geography Essentials such as World and Spatial Terms, Places and Regions,
 Physical Systems, Human Systems, Environment and Society, and The Uses of Geography.
- Build stronger collaboration with geographic organizations to conduct professional development that will increase teacher knowledge in geography education.

In conclusion, the *N.C. Standard Course of Study* (NCSOS) outlines the importance of daily social studies instruction in elementary, middle and high school. The Scope and Sequence emphasizes that geography standards must be an integral part of social studies instruction. As educators, it is pertinent that social studies education not be taught in isolation. Without a thorough foundation in social studies education, which encompasses three of the four 21st century skills - Global Awareness; Financial, Economic, Business and Entrepreneurial Literacy; and Civic Literacy - it is unreasonable for us to expect North Carolina students to be globally competitive as well as effective citizens in our democratic society. K-12 social studies education, which encompasses geography, history, economics, political science, anthropology, sociology, psychology, cultural diversity, and civic awareness, can no longer be neglected in our North Carolina public schools. School administrators must place an emphasis on this discipline just as they do on math, reading and science. It is our commitment at the North Carolina Department of Public Instruction (NCDPI) to continue to provide teachers with sustained professional development and on-line resources to support the study of geography and other segments of social studies.