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GeoCapabilities: An International Approach to Researching and Improving Teacher Preparation and Leadership in Geography (0026)

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Context

GeoCapabilities is a transatlantic collaborative project for researching the potential of improving curriculum making in geography through a "capabilities approach" to teacher professional development. The project is being led by the Association of American Geographers (AAG) in collaboration with Texas State University's Grosvenor Center for Geographic Education, the Institute of Education in London, the University of Helsinki, the European Association of Geographers (EUROGEO), and the Geographical Association.

The capabilities approach provides a theoretical framework for understanding the broader aims of geography in education and how these aims may be shared internationally, irrespective of differences in the scope and sequencing of national curriculum standards. We posit a capabilities approach can empower teachers to become leaders of curriculum making by clarifying the ways geography imparts an essential perspective for life and citizenship in a highly interdependent world. We would further argue that establishing joint efforts between U.S. and European universities to develop teachers as leaders will prove an indispensable strategy for achieving the potential of the capabilities approach in geography education.

Methodology

The research in the first year was concerned with exploring and clarifying the following questions:

1. In what ways is geography a "powerful knowledge" (nb. Young 2008)? In what ways is the capabilities approach helpful to teachers in bridging notions of powerful knowledge content to broader educational aims?
2. In what ways can geography standards in different national settings be said to contribute to the development of human capabilities?

We proceeded to implement a two-stage methodology for analyzing national geography standards in the U.S., England, and Finland from a capabilities perspective. First, researchers in each country partner independently performed a content analysis of their respective national documents presenting the standards/curriculum framework for geography. The text of the

documents was coded for explicit and implicit evidence of the three capabilities. The coding, where possible, was performed on sections pertaining to the "purpose" or "significance" of geography education (i.e., why geography is important) as well as on sections outlining the geographic content, skills, and performance expectations for students at different grade levels (i.e., what students should know and be able to do).

Results

Table 1 summarizes key characteristics of the structure and organization of school geography curricula as presently depicted in the U.S., England, and Finland, along with the geography requirements set by education policies governing schools at the national level (in the cases of England and Finland) and at the state and local levels (in the case of the U.S.). One can quickly construe from this information that not only is there profound differences in geography curriculum and requirements within the U.S. alone, but such differences become even more pronounced when comparisons are made among the three countries profiled in this report.

Table 2 outlines examples of how three capabilities potentially provide a common ground for thinking internationally about the outcomes of education in geography. In relation to each capability, we reviewed the findings of our case studies for evidence of overlapping goals and aims for educating young people in geography. Examples of shared goals are presented in the second column. In turn, this information opens up avenues for potential collaborations in curriculum making, while engaging teachers in ideas about education and their professional aspirations and responsibilities as geography teachers. These examples are shown in the third column.

Table 1: Comparison of national geography standards and requirements in the U.S., England, and Finland.

	United States	England	Finland
Structure and organization of national standards/curriculum for geography	Geography for Life (2012): 18 standards organized into 6 essential elements. National standards are voluntary guidelines. States write their own standards, and local jurisdictions often are free to decide whether or not to require geography. At either the middle school (grades 6-8) or high school level (grades 9-12), geography may be present as a strand within social studies standards or as a separate set of standards (sometimes paired with history), often linked to a course.	The geography standards, expressed as the national curriculum programme of study (POS), has not been stable. Thus, the POS for primary (5-11 years) is the one written in 2000 (this being the third iteration since 1991); the key stage 3 POS (11-14 years) was reformed in 2008; all are being radically reformed for first teaching in 2014. Geography is optional after 14 years: approximately 30% of students choose to study for GCSE, a national externally assessed examination. Schools can choose from a list of seven different geography ‚specifications' offered under free market conditions by four commercial Awarding Bodies.	National Curriculum (2004) The aims and contents of each school subject are defined quite briefly in the national core curriculum. There are altogether only eleven pages describing the aims, contents, good performance at the end of the fourth and the sixth grades, as well as the final assessment criteria for the 9th grade for the subjects 'Environmental and Natural Studies', 'Biology and Geography'(5th and 6th grades), and Geography (7th-9th grades).
School geography requirements.	Elementary grades (K-5): Geography mostly integrated with social studies disciplines. Middle School (grades 6-8): 18 states either require or make optional a geography or geography/history course. 11 states have no geography requirement, while individual districts in 22 states may require geography. High School (grades 9-12): 27 states either require or make optional a geography or geography/history course. 7 states have no geography requirement, while individual	All state primary schools must teach geography by law. All state secondary schools must teach geography to 14 years. There is no requirement in law to offer geography after 14 (but only c 100 schools - from 4500 - do not offer the possibility to study geography to GCSE). There is no legislation to say that geography should be taught as a discrete subject: most primary schools (and some secondary schools) integrate geography – eg with science or history – or in themes such as environment. There is no legislation to lay down how much time should	Grades 1-4: Geography taught as a natural science in first four grades in Environmental and Natural Studies. Grades 5-6: Required geography and Biology course. Grades 7-9: Required stand-alone geography course.

	districts in 17 states may require geography.	be devoted to geography – so long as the POS is covered.	

Table 2. Examples of shared capabilities in geography education and their implications for collaborative approaches to teacher preparation and leadership in curriculum making.

Capabilities	**Synthesis Findings (U.S., Finland, England)**	**Implications for Curriculum Making (Examples)**
Promoting individual autonomy and freedom, and the ability to use one's imagination and to be able to think and reason.	A shared view in the standards is that geography education equips individuals with the ability to think and reason using diverse forms of locational data and knowledge of human and natural systems in different (and sometimes unique) place contexts. This contributes to the empowerment of individuals to think critically and creatively, whether independently or in collective decision-making and problem-solving contexts, about change and alternative futures.	Teachers in the U.S., Finland, and England participate in online projects and discussions to offer diverse examples of how their fellow citizens face decisions on where to live, what to build where, how and where to travel, how to conserve energy, how to wisely manage scarce resources, and how to cooperate or compete with others. On the basis of these exchanges, teachers work together to develop curriculum materials that engage students in geographic questions of this nature, and demonstrate the significance of context and perspective.
Identifying and exercising one's choices in how to live based on worthwhile distinctions with regard to citizenship and sustainability.	Reform of geography in all three countries is driven by greater attention to the idea of sustainability and mandates for environmental stewardship. Knowledge of human-environment relations is essential for understanding environmental and development issues at local, regional, national and international scales, and how individual and collective decisions about the future can be enhanced on the basis of this knowledge.	Teachers in the U.S., Finland, and England participate in online exchanges of data on energy consumption based on household energy logs. They interpret similarities and differences in localized decision-making using comparable data for developing regions, considering the relevance of urban vs. rural land use and energy choices, etc. This experience prepares them to create similar classroom activities for their students, and also to engage other teachers in thinking about environmental questions from a comparative perspective.
Understanding one's potential as a creative and productive citizen in the context of the global economy and culture.	Citizens require geographic knowledge and perspectives on economic processes and conditions in different regions to compete and cooperate effectively in a global market while being mindful of the impact of choices, the diversity of cultural approaches to business and economic decision-making, questions of how to act ethically, and the value of considering the greater good.	Teachers in the U.S., Finland, and England collect sales data on products manufactured under a variety of trade relationships between their nations and developing regions, considering and debating the costs and benefits to producers and consumers. They then co-develop a list of questions and have their students engage in online discussions about the relative merits of trading systems and how this knowledge might affect their future choices as consumers and business owners.

Implications

In this context, we quickly discovered that it would be impractical, for purposes of achieving the goals of our project, to perform a comparative analysis of national standards at the level of grade-level content alone. Given the ultimate goal of GeoCapabilities is to construct a conceptual framework supporting an international dialogue, and eventual university-based collaborative programs for teacher preparation in geography, we needed to consider how our respective standards view the role of geography in education from the standpoint of overarching aims and goals. Capabilities potentially provide a unifying language which make such discoveries possible for researchers and, it is hoped, teachers. We posit that once shared aims for geography education are identified, and their implications for teacher preparation are discussed internationally, subsequent efforts to engage geography educators in curriculum making at the local level and through international collaboration can proceed with a clearer sense of purpose.

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