

## Is the inclusion of Geography in the School and University Curriculum Important in the 21st Century?

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**ABSTRACT:** A number of people in the world do not understand the reasons for studying Geography mainly because apart from academia there are no other people employed as geographers, therefore the question of why one should study geography is a valid question. Nevertheless, geography is a multidisciplinary subject that has a myriad of career options in areas ranging from meteorology to disaster management. With geography one is equipped with a holistic understanding of the earth and its systems in totality. This include issues such as climate change, global warming, desertification, El Nino, water resource issues, among others including the understanding of global political issues that occur between countries, cultures, cities and their hinterlands, and between regions within countries. This is particularly important in a world that is gradually becoming smaller (globalisation). The study of world regions i.e. culture, foods, language, religion and landscape helps in understanding of our world. This is particularly important because, those who choose to study geography will learn to think critically, research, and communicate their thoughts through writing and other means of communication independently. They will thus develop skills of graphicacy, measurement, analytical, mathematical and leadership skills. The study of geography should be enhanced since it provides students with knowledge about our rapidly-changing world and how humans are impacting our planet including plenty career opportunities associated with the subject.

**KEYWORDS:** education, geography, geographic ideas, geographic research and geographic thought.

### 1 INTRODUCTION

Geography occupies a pivotal position in the understanding and interpretation of social, economic, political and environmental conditions and change, both spatial and temporal. There are so many careers prospects after studying geography; this is mainly because our daily life is interwoven in geography which entails a pathway to understand cultural diversity and general planning for the future. Geography challenges citizens to become better environmental stewards' through an understanding of society's complex issues which enables good decision making informed by responsible global citizens. Generally, geography is both multidisciplinary and interdisciplinary; it enables one to acquire skills in, measurement graphicacy, judgment, civic education and observation among others. Geographical education is a discipline rooted in the realm of geography and education. "Education may be thought of as all those processes of learning which enable a person (or child) to acquire skills, behaviors knowledge, values and norms which are considered necessary to live a happy and successful life in the society to which one belongs" [1]. From this definition one can conclude that Geography is important because pupils also acquire skills such as numeracy and graphicacy in Geography to name a few. Reference [2] defines curriculum as "the total experience of children resulting from complex interaction of official guidelines, interpersonal relations, available resources and quality of teachers .... It is more than formal activities for which the timetable allocates specific periods of teaching time; it includes informal activities that go on at lunch times after school hours and weekends." Since Geography comprise of the earth's study and as people we are duty bound by the dictates of humanity to include it in the school / university curriculum since it includes our food, shelter etc. The question at hand here is whether Geography fits in this definition of which it does very well as evidenced by the following discussion.

## **2 AIM AND OBJECTIVES OF THE STUDY**

The aim of the study is to:

Show how the study of Geography is important to human development.

The specific objectives of the study are to:

- Document how geography influence human development in different parts of the world
- Develop an understanding of basic concepts, principles and theories relating to geographical education in shaping global citizens.
- Analyse how the learning of geography promotes peaceful coexistence and citizenship

## **3 WHO IS A GEOGRAPHER?**

Before embarking on who a geographer is it is important to define what Geography is the study of man – environment relationships from the point of view of spatial relationships. Alternatively [3] define Geography as the “the study of the earth’s surface as the home of the human race.” The identification of who a geographer is fraught with problems because people whose academic degrees are not in geography may be doing work that is geographic, while people with training in geography may hold jobs that do not appear to be geographic (though the person might or might not use geographic skills. Certainly, geographers are concerned with the distribution of various kinds of social, biological, and geomorphological phenomena over space. Geography tries to answer the following questions: *Where is it? What is it like? Why is it there? How did it happen? When did it happen? What impacts does it have? How should it be managed for the mutual benefit of humanity and the natural environment?* [3]. These are questions that differentiate geographic approaches to understanding the world from the approaches of other scientific disciplines. Geographers are therefore fascinated by the interface of social, physical, economic cultural, technological, political and legal systems. It is argued in this paper that, once in a while, practitioners of any discipline particularly those in the classroom need to reflect on the fundamental question of whether their subject deserves its place in the curriculum. In this way the subject and its practitioners remain on their toes and experience periodic rejuvenation. They also begin to appreciate the education of the child as a multi-faceted affair to which they and their discipline only contribute in the wider context of the whole curriculum.

## **4 OVERLAPS OF GEOGRAPHY WITH OTHER DISCIPLINES**

Geography is characteristically interdisciplinary / multidisciplinary; its concerns intersect on social, physical, political, cultural economic, technological and political and legal systems; it shares areas of interest, knowledge, and methods with many fields (refer to Fig 1 below). The human-ecological perspective, or man-nature interaction, is the main focal point of the geographical approach [4]. Reference [5] posits geographers are interested in human survival and the full range of responses to environmental shifts and the challenges of human occupancy of a dynamic planet i.e. preserving, conserving, sustaining, and renewing the bases for life in as much as Astronomers are interested in the origins of the cosmos; Archaeologists are concerned with the origin of civilization; and Psychologists study the mind and how people think and understand

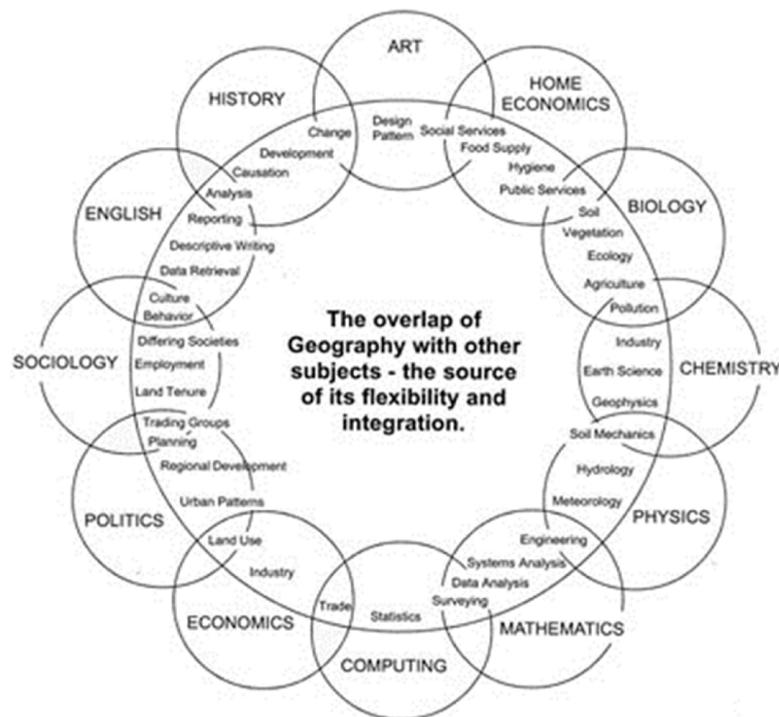


Fig. 1.

Source: [5]

## 5 GEOCAPABILITIES: A FRAMEWORK FOR UNDERSTANDING THE PURPOSES AND VALUES OF GEOGRAPHY EDUCATION

The geocapabilities approach inspired by the writings of philosopher Amartya Sen and economist Martha Nussbaum provides a theoretical framework for understanding the broader aims of geography in education and how these aims may be shared internationally, in spite of the different traditions and policies influencing the content of geography curricula in different countries [6]. A capabilities approach to geography education can empower teachers to become leaders of curriculum making by expounding the ways geography imparts an indispensable viewpoint for life and citizenship in an extremely interdependent world. Efforts to develop teachers as leaders will prove an indispensable strategy for achieving the potential of the capabilities approach in geography education. Geography education potentially contributes to the development of three human capabilities:

- Promoting individual autonomy and freedom, and the ability to use one's imagination and to be able to think and reason;
- Identifying and exercising one's choices in how to live based on worthwhile distinctions with regard to citizenship and sustainability;
- Understanding one's potential as a creative and productive citizen in the context of the global economy and culture [6]

The illustration shows how the broader aims of geography education for capability development are shared across national borders, irrespective of differences in the scope and sequencing of national standards.

## 6 MATERIALS AND METHODS

This was a desk study to show how important geography is; this study was invoked by the fact that for the last 20 years I taught geography at both high school and university level. Research involved collecting readily available information in the public domain on the importance of geography in the school curriculum i.e. the use of secondary data. There was extensive review of literature on the importance and non-importance of geography.

## **7 RESULTS AND DISCUSSION**

### **7.1 GEOGRAPHY AND HUMAN RIGHTS**

Geographical educators in their work take on board the Universal Declaration of Human Rights [7] and in particular to:

Article 25

1) "Everyone has the right to a standard of living adequate for the health and wellbeing of him [her] self and of his [her] family, including food, clothing, housing and medical care and social services, and the right to security in the event of unemployment, sickness, disability, widow[er] hood, old age or other lack of livelihood in circumstances beyond his [her] control."

Article 26

2) Everyone has the right to education.....Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace."

People face problems daily and pursuant to solving these, there is need for the right to education which includes the right to high quality geographical education that encourages an objective national to global identity.

### **7.2 IMPORTANCE OF GEOGRAPHICAL CURRICULUM IN EDUCATION**

It is contended here that the conferring of the curriculum process on so called institutional and evaluation experts who do the thinking while the teachers are reduced to doing the implementation unnecessarily separate the planning of the curriculum from its execution. This may particularly explain why practicing teachers use note and recall techniques rather than the child centred approaches [8]. It is unrealistic to expect chalk face operators to use methods which empower the learner when they themselves are disempowered and marginalized in the curriculum formulation process. Teachers should take the responsibility of deciding what to teach, how they teach and how they evaluate this teaching and learning. To argue that our teachers are incapable of taking on a responsibility is to try and duck the challenge. Teachers need to be educated to take up this challenge which is central to any education worthy of the name. Perhaps the experiences of Geographers and Geography educationalists in other countries will highlight just how precarious a subject's tenure in the curriculum can be.

Reference [9] states that on June 19, 1985, the then Secretary of State for Education in the British Government, Sir Keith Joseph, posed seven questions to members of the British Geographical Association. The questions can be paraphrased thus:

- What criteria are used for the selection of the content of Geography courses at primary and secondary school level?
- How do geographers deal with the challenge of basing the pupils' geographical education on practical learning and direct experience?
- What is the place of a multi and interdisciplinary approaches to the studying and understanding of spatial patterns and how do they change?
- How do geographers view the balance between people and the environment, whether physical or economic?
- What teaching approaches are needed for dealing with controversial issues in Geography?
- How can the teaching of Geography be best organised at both primary and secondary level?, and finally
- What aspects of geography should every learner up to the age of 16 is expected to learn?

Reference [9] goes on to say that this came at a time when the groundwork for the General Certificate of Secondary Education (GCSE) National Curriculum in England and Wales was being laid, Sir Keith's questions were effectively seen as a challenge to geographers to justify their subject's continued presence in the core curriculum [10]. "A case for Geography" was a synthesis of the Task force set up by the Geographical Association to respond to the seven questions. Much has been debated since then, but the short of it is that geography has secured itself a place in the core curriculum.

As teachers of geography we have a vested interest in keeping the subject in the curriculum. But how many chalk face practitioners in schools could sustain a convincing argument for keeping geography in the curriculum as opposed to the demands for time by for instance the so called minority languages such as Kalanga and Nambya in Zimbabwe, the modern languages such French as well as by emergent offerings such as AIDS education? Can we therefore argue convincingly for the

content, structure and methodology of geography as it is currently practiced in our schools? Of course we can as observed by [11]

“In a world ever more crowded with people, even more mobile, and ever more armed with potentially powerful technologies, it is crucial for pupils to be educated towards an understanding of the major spatial issues which concern our physical and social existence. The understanding of the dimension of space and its implications for individuals, groups, whole nations, is essential to a proper appreciation of many of the major issues which confront the modern world.

**Table 1: Ten Big Questions in Geography**

1. What makes places and landscapes different from one another and why is this important?
2. Is there a deeply held human need to organize space by creating arbitrary borders, boundaries, and districts?
3. How do we delineate space?
4. Why do people, resources, and ideas move?
5. How has the earth been transformed by human action?
6. What role will virtual systems play in learning about the world?
7. How do we measure the immeasurable?
8. What role has geographical skill played in the evolution of human civilization, and what role can it play in predicting the future?
9. How and why do sustainability and vulnerability change from place to place and over time?
10. What is the nature of spatial thinking, reasoning, and abilities?

Source: [12]

The Ten “Big Questions in Geography,” were put by Cutter and her colleagues’ and are related directly to social-ecological interactions which are embedded in geographic approaches that are exclusively positioned to provide knowledge to understand social-ecological interactions. The most basic of human rights are life, liberty, and the pursuit of happiness; all these rights are played out upon a geographic stage, have geographic properties, and function as a geographical process. The big questions lead to further questions e.g. how and why does lifestyles vary from one place to another, and does the very nature of that pursuit change geographically? The big questions articulated above invoke us to do research on problems such as:

- What are the spatial constraints on pursuing goals of life, liberty, and the pursuit of happiness?
- What are the future resource needs? Where will we find the new resources that have not been adequately explored?
- When does geography start and finish? Does it matter?
- What are likely to be the key challenges in doing the geography of other planets?
- Will cities of the future remain bound to the land surface, or will they move to what we now consider unlikely or exotic locations (under water or floating in space)?

John Noble Wilford, the science correspondent for The New York Times at the 2001 National Meeting of the Association of American Geographers (AAG) argued that geography should articulate the big questions that should capture the attention of the public, the media, and policymakers by answering the following questions:

- Are geographers missing big questions in their research?
- Why is the research by geographers on big issues not being reported?
- And what role can the AAG play in improving geographic contributions to address big issues?

The majority of geographers are academicians, their agendas and reward structures are targeted at specific research extremely masked in paradigms that are obscured to decision makers and the public. in addition, this social structure tends to lead geographic researchers’ into researches on small problems that can be solved promptly, generate professional

publications, and support a drive for promotion and tenure, rather than investigating more intricate, bigger problems that are not easily solved and do not necessarily lead to academic publications of a type the genre usually demands.

In general, geographers outside research and university settings are dotted and work in isolation, in small groups, or as members of larger interdisciplinary teams for governmental agencies, businesses, or private organizations. In most countries there are few true “institutes” of geographic research, therefore it difficult to focus geographic energy on big problems. Geographers, as a result of their isolation are responding to immediate and short-term demands on their time and talents, rather than leading the larger-scale investigations which have the capability to influence policy on a larger scale. Most of the work done by geographers goes unrecorded for two major reasons:

- It does not fit the classic pattern for the research journals where geographers get their best career awards.
- And work related to policy often emerges without acknowledgment to the researchers of origin.

Geographers usually work under an organisation such that when research results emerge attribution may be tricky, one geographer may be studying transport problems in Harare whilst the other will be studying shortage of housing in the same city. These examples show that geographers play a fundamental role, but the product of their work is ascribed only to an organisation while individuals are recognised as contributors. If the reports effectively influence policy, the decision makers who articulate that policy take credit for the process, rather than the original investigators who made the recommendations. For this reason the need to join associations such the Geographical Association of Zimbabwe so that they speak with one voice becomes apparent. This is particularly important because communication of geographic research findings to the public in a coherent way can be challenging.

Reference [9] argued that a more extreme challenge to geography education as it is conceptualized in Zimbabwe can be seen in the United States in the US geography in schools has suffered from the “Triple-D” syndrome. It has either *disappeared*, has been *demoted* or *dropped* from the curriculum subsumed under such offerings as “earth science”, has been demoted to the soul wrenching status of place-name memorization, or is just not talked about at all. The status of Geography was in such a palsy state that drastic counter-measures had to be taken by those with geography at heart. Though concerted lobbying activities, geography educationists and geographers have ensured that since 1987 the congress of the United States of America has passed an annual joint resolution designating a “Geographical Awareness Week” – a week dedicated to “things Geographical.” [13] Argued that Geography is very important because it enables pupils to develop a range of skills through practical work which includes investigation in the field, involving observation, collection interviewing people as well as presentation, analysis, interpretation and use of data including maps and photography. Geography also entails the use of verbal quantitative and symbolic data forms such as text pictures, graphs, tables, diagrams and maps and finally the use of communication, thinking, practical and social skills to explore geographical topics at a range of scale from local to international. A field trip in geography to a company like Lever Brothers Pvt (Ltd) which manufactures detergents and food etc will help pupils acquire attitudinal and aesthetic needs, more specifically the tour will arouse pupils curiosity and thereby motivating them to want to learn more including the concrete basis of conceptualization at the same time allowing for spontaneity and sense of humour as well as sharing intellectual endeavor. Many of these skills are psychomotor – touching, smelling, hearing and seeing bringing into play all learning faculties. After the tour pupils are engaged in report writing – “Thank you letters” and “Vote of Thanks” – this will develop pupils’ communication and public relations skills.

Places on the earth’s surface have different natural and human characteristics. Knowledge of physical characteristics of places and pupils environmental perception and behaviour are the basis for comprehending the interrelationships between people and places. People use the environment in a number of ways i.e. mining, farming etc resulting in a variety of cultural landscapes. Understanding these complex interactions provides an important basis for responsible environmental planning, management and protection, as [14] argues that knowledge of the location of people and places which we attain through learning Geography, is thus a precondition for understanding local, regional and global interdependence.”

Geography can be used as vehicles for the child development to help him/her acquire the art of using knowledge or to learn something of his cultural heritage. It is often claimed to be a necessary background to citizenship and initiates children into a particular mode of thought [15]. Properly interpreted the Geography described here does not conflict with the aims of education but rather it supplements these. Geography enables us to understand spatial interaction – resources are unevenly distributed over the earth. Countries and regions are interdependent and linked by transport and communication systems in order to exchange resources and information; therefore [15] put it aptly when they say “Geography furthers international understanding.” Geography contributes significantly to environmental Education which is defined by the International Union for the Conservation of Nature and Natural Resource (IUCN) in [16].

“Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelationships among men, his culture and his biophysical

surroundings. Environmental Education also entails practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality.”

The best subject to teach environmental education effectively and meaningfully is Geography since the two are complimentary.

Geography contributes to general aims of education in a number of ways since there is a clear need to interrelate subjects in the curriculum through the utilisation of knowledge acquired in one part of the curriculum to another e.g. the interpretation of maps in History. Reference [15] argue that a more promising claim can be made that Geography teaches essential skills mainly those concerned with maps. The most essential of these concerns the atlas. The ability to use an atlas unlocks the door to locations over the whole world. The more detailed the training, the greater the map understanding, the more each pupil, or adult reads for himself the basic facts of the world locational knowledge needed in everyday life, the more knowledgeable they become. The atlas is but a particular map in general maps of all kinds appear in enormous variety of publications or subjects today and hence Geography often links very well with other subjects in the curriculum such as Maths, Biology, Physics, Chemistry, History Religious Education to name but a few.

Map Reading and many other forms of Geographical study also provide training in how to find out about places. Many people in Zimbabwe today know that Zimbabwean soldiers fought in the Democratic Republic of Congo (DRC) but they do not know where the DRC is and why our soldiers fought there. Without adequate geographical knowledge, it is very difficult to understand these current events. Related to this, map reading becomes worthwhile. Reference [14] argues that we can only teach something that is worthwhile if we are to effectively educate, - a notion confirmed by Peters in [15] who contends that:

“The truth is that being worthwhile is part of what is meant by calling it education. Education implies the intentional bringing about of a desirable state of mind. A development of this is that to be educated implies caring about what is worthwhile, and being brought to care about it. With the mastery of basic skills the door is open to a vaster and more variegated inheritance.”

It is tempting to claim that as [15] argue that at higher levels geography trains students in orderly methods of thought which produce benefits in the form of similar methods elsewhere and that geographical study enables the individual to enjoy a richer use of his leisure. Geography shows us how to study places although there is no proof that it creates interest in them, this seems a likely supposition. At the simplest level, children will be able to plan more and interesting/ rewarding journeys since they would want to discover the glacier, hurricane or the volcano. Reference [15] as in [14] asserts that, “we submit that a subject which considers man’s activities as much as does geography has some claim to be among the humanities. The sixth former at least becomes aware that there are human as well as physical forces shaping our world and that they are not reducible to a scientific formula in view of the increasing division today between the two cultures, this is surely a powerful argument for the inclusion of geography in the school curriculum.”

### 7.3 EMERGING TRENDS IN GEOGRAPHY: THE SIGNIFICANCE OF GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND REMOTE SENSING

GIS deals with the storage of information about the Earth for repeated retrieval by a computer, in an accurate manner suitable to the information’s use as well as the use GIS software and GIS techniques to represent, analyze and predict spatial relationships [17]. In addition to all of the other sub disciplines of geography, GIS specialists ought to understand computer science and database systems. GIS has revolutionised the field of cartography; nearly all mapmaking is now done with the backing of some form of GIS software. Remote sensing is the science of getting information about Earth features from measurements made at a distance in many forms such as satellite imagery, aerial photography and data obtained from hand-held sensors. Remotely sensed data: a) supplies objective information at a variety of spatial scales b) provides a synoptic view of the area of interest, c) allows access to distant and/or inaccessible sites, d) provides spectral information outside the visible portion of the electromagnetic spectrum, and e) facilitates studies of how features/areas change over time [18]. Remotely sensed data is analyzed either separately or in combination with other digital data layers e.g. GIS. Geostatistics deal with quantitative data analysis, specifically the application of statistical methodology to the exploration of geographic phenomena in a variety of fields such as hydrology and geology.

## 8 FUTURE DIRECTIONS FOR GEOGRAPHY

Reference [15] argues that Geography is a particular way of regarding knowledge, above all an integrating way. It is this peculiar function of our subject to draw together the entire facet about a place. The integrating function is vital to Geography. The Geographer sees things as a whole; he is a synthesizer, a collector and evaluator of relevant facts about places. Some other subjects doubtless claim similar qualities of collecting and evaluating all data relevant to their own

matter. In schools, I believe this quality is very clearly apparent in Geography e.g., weathering raises the question of chemical processes, precipitation of physical one; vegetation offers links with botany and planetary movements. The teacher must sometimes make a conscious effort to show the relation of geography and History and an even greater one to persuade his pupils to write good English. Certainly his specialist colleagues in these other fields will be grateful for his efforts as Fairgrieve in [15] observes, "The function of Geography in the school curriculum is to train future citizens to imagine accurately the conditions of great world stage and so help them to think sanely about political and social problems around them." In other words Geography produces a world viewpoint or an understanding of other people's point of view. In conclusion, there is undoubted case for the retention of Geography in the curriculum. Its importance is evident from what has been discussed above. One would argue that geography is an indispensable part of the school curriculum. As [19] observes:

"Geography is intriguing because it is there all around one; the world that is an inextricable part of one's everyday life. The fascination of the discipline is that it gives one keys which can help one understand and explore that everyday world."

The main issues discussed here are not all-encompassing. They signify my shared judgments (and biases) on what issues are important for the discipline of Geography, and those that should provide a focus for our significant intellectual capital. This paper, in my view is the commencement of a discourse within the discipline of Geography as to the importance of geographical education as well as the likely big questions which can stimulate a dialogue and collective research agenda for the future and the next generation of geographic professionals.

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