Geography Education for the 21st Century Chandra Shekhar Balachandran

n Friday, 3 December 1971, Pakistani air force incursion into Indian air space triggered a full-scale war between India and Pakistan. On Saturday, 4 December, Mr. Narasanna, social studies teacher for 8th 'B', National High School, Bangalore, walked into the class, 1st period, early morning.

He announced, "Today, we will spend five minutes on world news." We were mildly thrilled... so long as it was not that dreary textbook, we were quite open to anything. He looked around for a wall map. None to be found. Eighty-two gawping kids just watching with no particular interest or emotion.

Then he electrified us. He just cleaned the chalkboard and proceeded to draw the continental outline map of the world! A collective gasp went up and the excitement in the room was palpable. He had achieved the first of many, what I now call, "teacher moments" - when the 'light bulb' goes on. Mine was two watts, at most. But it went on!

He proceeded to give us a detailed description of the history of the war. The events from 1947 and fast-forward to 1971. Everything from the injustices heaped on the East Pakistanis, their reaction, the military repression, China's involvement, Indira Gandhi's trip to several western capitals explaining that India would not go to war (while actually preparing for it).

All this dramatized in Kannada that we kids spoke. He was also a brilliant caricaturist. Indira and Richard (Nixon) faced each other on the blackboard with their protruding noses, Tikka Khan screamed at a taciturn Zhou En-Lai about Indian injustice ... The five minutes turned into all the social studies classes for the duration of the war (it ended Thursday, 16 December). He had introduced me to geopolitics, political history, and political and historical geography.

In 1993, 22 years later, I received my PhD in geography, dedicating my dissertation to Mr. Narasanna's memory. In 2010, 39 years later, I vividly recall every sensation of that Saturday morning class.

This is the power of the teacher. This incident holds many

lessons for us today. I will delineate a few here.

The Power of the **Teacher**

Mr. Narasanna represented a very noble breed of teacher – deeply passionate

about the subject and imbued with its explanatory power. What no government-produced geography textbook could excite, he did: the geographic imagination!

I could imagine the military moves and countermoves. No

television, internet, newsreels (they were always late), nothing. Mr. Narasanna's narrative, his maps, caricatures, play-acting, and the newspapers. I first started reading newspapers as of 4 December 1971. Ever since, I have always connected geography and current events and come to understand that geography is fundamental to make sense of our world.

The importance of the shape of peninsular India, location of the Himalaya, resource re-distribution due to partition, variations in climate, cultural geographies, and a myriad other factors about the emergence of Bangladesh came alive to me.



True geography learning is when we don't show a stepmotherly attitude to being sons of the soil.

The Relevance of Relevance

The geography of South Asia was introduced to me via an ongoing process in which I was a participant – rations, raising funds for our jawans, putting brown paper on the window panes at home for the nightly brown-out, etc. What he taught in that class had an immediate relevance. I understood the geographic reason for the brownouts in Bangalore. I was part of the posse of scrawny little kids going up and down our street reminding people to turn the lights out until the all-clear was blown!

Coming to now - I recently visited a 7th grade social studies class in a Kannada medium government school recently. The students told me they were studying the physical features of Europe. Impressive!

I drew a circle, the principal latitudes, got them to

Section B Pg No: 68 identify these, and asked for a volunteer to come to the board and show me where Europe is located on that Earth. No one could. They didn't know what Europe was. Same result when I asked for someone to show me where India is.

I asked them what use they saw for such study in their lives. No answer. Of course there is plenty of use, but let us put such usefulness in context. I asked them if they use geography in daily life in any identifiable way. No answer. I asked them how they come to school daily and how they know the route to the school and back. "There you are using geographical knowledge." Much sage nodding of heads.

Next, I asked them how many were from agricultural families. Almost all. We did a quick survey of the crops grown on their family lands. Then I asked them to look at why those particular crops were grown and not something else. Discussion quickly yielded the importance of soil, climate, water, market, dietary preferences, and generations of practice. I told them that their parents are practical geographers and that is where, every day, geography is being used. Right at home.

We need to question the utility of studying about distant lands without engaging with the geography right under our own feet! If it is relevant to the students' lives, they will find any subject fascinating.

Subject, Discipline, Integration

Subjects are taught as if they are water-tight compartments. Most students are not taught how geography can bring together physics, chemistry, biology, geometry, economics, anthropology, sociology, language, and arts to make sense of our world. The power of geography is two-fold: (a) it gives a unique framework to make sense of our world – the geographic or spatial framework, and (b) it opens the mind up to integrating all subjects into this framework so that the interconnectedness of phenomena becomes clear. When we take this approach, we will be teaching geography as a discipline, not just a subject.

This is no mere intellectual exercise. An integrated ('holistic') understanding of our world makes us better equipped at analyzing and solving problems, planning, and working towards social justice. Geography is eminently empowering in this 'horizontal integration' (interlinking different subjects within one standard). I use the topic of the southwest

monsoons to help teachers and students understand how geography helps integrate other subjects with it. You can't appreciate the grandeur of the southwest monsoons without applying physics, chemistry, geography, culture, biology, mathematics, fine and performing arts, language, etc. I have even geography teachers coming up to me after this workshop and saying, "I had never thought of geography this way!" It is elegant, fun, and powerful. A collaborative process of scheduling topics in their own classes and tying them back to the southwest monsoons is all that it takes; often, it is just the use of monsoon examples instead of some other example. This approach helps students understand the power of geography and how it fosters interdisciplinary thinking.

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As students progress from class to class, their geography learning must build into discernible and useable frameworks and skills-sets ('vertical integration'). The southwest monsoon example can apply here too. The initial treatment may be to observe simple patterns associated with the monsoons – torrential rain, playing in the rain, the fears that people have about playing in the rain, what kind of foods we like to take during the rainy season, etc. With each subsequent year, it can be built to look at the complexity of the monsoon system, how we try to understand it, the factors that determine its behavior, etc. Thus, a geography student going through successive years will build a variety of skills beginning with pattern-matching and moving on to analyses of causal factors and patterns, and to impacts and eventually to application.

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Re-imagining geography Education in the 21st Century

There is a dire need to enhance the theory and praxis of geography education in and for the 21st century to empower both teachers and students. We need to begin with the fundamental recognition that social science education is as vital to human development as the 'natural' sciences. This is not possible without educating the educators!

We Need to Adopt a Three-track Approach, Simultaneously

1. Curricular Development

Curriculum, syllabus, exams, and pass percentages are facts of life. However, an empowered teacher can make the geography class fascinating with just a little extra effort to clarify conceptual understanding and application.

One effective method is to use current events and other familiar activities to illustrate geography concepts. For example, teaching latitudes and longitudes is among the toughest things for a middle-school geography teacher. Using two calendar observances — Christmas and New Year — both can be taught effectively. Kids love to play hopscotch. This is a great way to teach them the fundamental idea of spatial organization. (You can also break gender-stereotypes in this activity!)

Use of current events requires some amount of research by the teacher. It also requires students to read newspapers. The otherwise under-utilized newspapers-in-education (NIE) programs of several newspapers can be useful in this.

In most cases, the teacher-pupil ratio is inimical to much activities-based learning. Telling a story, recalling a poem, a film song ... all these can make the topics relevant and fun. Association with fun will enhance clarity of understanding and, if good communication skills are built, will lead to better exam performance also.

2. Co-curricular Development

Co-curricular learning is collaborative and relates to the textbook topics but may not be directly aimed at enhancing exam results. Students understand a topic better, are able to apply it, and therefore better able to answer some questions in an exam (this last is only one of the benefits). The activities do not necessarily translate to marks/credit. Example:

understanding the fluctuation of daily temperatures in a place using a newspaper, as part of the chapter on climate/ weather. This may not be directly a question in the exam, but it helps students see how geography is working in the lived environment.

3. Extra-curricular Development

This is the most important mode of geographical learning. It helps build more interest in geography in the learners' minds and helps improve curricular development. This is the ultimate value-added geography education. This is where civil society structures have a precious role to play by empowering both teachers and students. This includes at least the following components:

a. **Field-work** – understanding geography through field work such as landscape analysis walk-abouts, interviews, surveying, etc.

An easy way of understanding how we construct human geography in the environment easily shows us, for example, how we privilege vehicular traffic over pedestrian traffic (a serious urban problem in India); how we address safety concerns of the very young and the very old people in our geographic space; how we provide/deny geographic access to people with disabilities.

A very fun and instructive exercise would get kids to give directions and follow directions in different modes (spoken, verbal, written, maps, etc.). This hones their mental geographical acumen and its communication very well, because they first become conscious of it and can, over time, become 'naturals' at it.

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Field-work techniques can also teach students many skills in communication. If they have to find out what public trees in their own neighborhoods mean to people, what are the questions the students should ask, how are these to be asked, how will they know that the questions get clear answers they seek, etc.

I once set my students to a small in-school survey. They immediately said, "Some people may not talk to us, Sir." Through a lot of fun questioning and mocking each other, I got them to understand the importance of body language in communication to elicit geographic information from people. "You are kids. No one will be able to say no to you if you put on a 'puppy-dog' face and ask." Only a few kids needed to use it, but they reported success!

- b. Case-studies taking up real-world case-studies, using real data, and understanding the untidiness of life and research to think of solutions to real problems such as social justice, environmental conservation, disaster management, safety, service delivery, commerce, etc. I have used data from NGO work on social issues (e.g.: case study of girl children in sex work in Bangalore) to teach about urban geography issues and found students responding very intelligently and sensitively to social justice issues.
- c. **IT-enabled geography Education** learning to use modern electronic tools of geographic data processing such as GPS, GIS, the Internet, etc. provides vital analytical and problem-solving skills-sets that can help students compete in the market place of ideas and jobs in the 21st century.

Unfortunately, most curriculums do not engage with this seriously. This gap must be filled by civil society structures. At the time of writing this article, The Indian Institute of Geographical Studies is setting up GeoVidyaa Geography Center of Excellence at the campus of a school in Bangalore to start focused modules in this direction in the near future.

Students with basic understanding of computers combined with a strong understanding of basic geography concepts will be able to understand these tools and learn to use them reasonably quickly. All students from 8th standard should be exposed to these technologies and techniques. Google Earth and such platforms are a reasonable beginning but do not provide the intense skills that geographic knowledge production and application require. However, the beginnings must be made.

In summary, geography education is vital for developing the spatial sensibilities of our learners. Geography should be recognized as the bridge between the social and natural sciences. For over 60 years, in India, we have been emphasizing the need for 'the basics' in education. Rightly so.

However, we should urgently and assiduously start emphasizing 'value addition' if we are to help bring more and more people to participate in the emergence of a braver new world.

Nothing less will do.

• There are two blog entries on these that could be useful. They are being re-located at the time of writing this article. Please contact me for the address to those.

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