

REFORM AND TEACHING QUALITY —EXEMPLIFICATION OF REGIONAL PHYSICAL GEOGRAPHY

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ABSTRACT: There are a number of factors involved in teaching quality. Among them teaching materials or textbooks are of primary importance, the presentation of which relies first of all on the viewpoint to structure the contents geographically. Whatever branch of geography you are teaching or in pursuit, geographical viewpoint is vitally important. This paper in discussing innovation of geographical education about these institutions with the course of regional physical geography as an example. The higher education of our discipline is in pressing need of innovation and thereby upgrading quality.

KEY WORDS: teaching reform, teaching quality, regional physical geography

There are a number of factors involved in teaching quality. Among them teaching materials or textbooks are of primary importance, the presentation of which relies first of all on the viewpoint to structure the contents geographically. This paper takes the course of regional physical geography as an example. As E.A.Ackerman pointed out in early 1960s, viewpoint is one of the three ingredients that are indispensable to the development of the discipline of geography. This holds true in geographical teaching. Whatever branch of geography you are teaching or in pursuit, geographical viewpoint is vitally important. The paper will in the first place bring this point to light.

I. GEOGRAPHICAL VIEWPOINT

As mentioned above, one of the three ingredients is to consider matters from geographical viewpoint. Only in this way can the discipline of geography distinguish itself from its neighboring fields of study. Then, what is the geographical viewpoint? One may say that geographical viewpoint relates specifically to distributional pattern of geographical

phenomena and their spatial relations. It reveals the main disparity of geography from its sister disciplines. For example, the research object of pedology and soil geography is much the same, but geography does not study the soil itself, rather, it stress soil distribution and its spatial relationships to other environmental factors, i.e. the causal connections in space. In this regard, vertical and horizontal approaches are desirable. In many cases, horizontal analysis in relation to relevant factors reveals even better the spatial pattern of soil groups and their causal connections. In this way, it will enable students to get a better understanding of the sequent replacement of one soil group by another, such as eluvial black earths, chernozem, chestnut and brown soils respectively. Even more manifest is the Mediterranean climate, as it lies horizontally between the middle-latitude west-coast marine climate to the north and the low-latitude desert to the south. By horizontal correlation it becomes evident that the Mediterranean climate is but an intermediate type between the other two. Students will have a good grasp of the regular pattern of its distribution as well as its causal connections with them in space.

II. CENTRAL THEME

The central theme of regional physical geography is the physical structure of geographical environment, i.e. the integrity and disparity of the environment. These are the two fundamentals of physical environment of earth surface as the unity in diversity.

In studying a district either a continent or a region, emphasis should be laid on spatial relations omnipresent among the component elements. The integrity is expressed by the overall characteristics which result from the interactions of the component elements. The uniqueness of a continent can be brought into prominence by comparison with those of other continents. So, the interactions of component elements and the consequent overall characteristics virtually specify regional synthesis. But in consequence of differential distribution of solar radiation over the earth surface, varying substance composed, different relief features and locations with respect to land and sea as well as varying historical development in various parts of the earth surface, the geographical environment of a continent would fall into different regions according to different overall characteristics and so displays disparity. A region thus defined and divided exhibits its own distinctive overall characteristics as a result of the interactions of its component elements. It is, therefore, to be noted that a continent or a region is a whole in its own right. On the other hand, within the region there also exist differences or disparities. Hence, as far as the whole geographical environment of the earth surface is concerned, each continent with its own overall characteristics distinguishing itself from other continents. This shows disparity at a high level. In consequence, integrity and disparity are the outcome of the spatial structure of geographical environment and reflect dialectical relationship.

Also, integrity and disparity are conformable to the two basic disciplinary attributes of

geography—synthesis and regionality, these two attributes are closely related. With geography as a discipline of geoscience, synthesis must base itself upon space or area, otherwise, it is not synthesis of geography. On the other hand, regionality is not to be separated from synthesis, for without synthesis, regionality would become inconceivable. The conceptual combination of synthesis and regionality warrants our emphasis on spatial relationship in modern geography.

As far as upgrading teaching quality is concerned, enormous works await to be done as to the realm of mutual connections and interactions among the component elements. What we have done so far in this respect is very superficial. To put it in another way, it becomes a subject of grave concerns only lately.

In 1989, B.L. Turner II wrote an article entitled “The Specialist—Synthesis approach to the Revival of Geography”. The author deals mainly with cultural ecology, yet this idea is applicable to other subfields of geography as well as regional physical geography. The research contributions will determine the status and role of our discipline, and so will benefit geographical teaching. This implies that there is much room to upgrade teaching quality. Nevertheless, in order to make any notable progress it calls for our common efforts far greater than we ever did before.

III. GENERALITY AND INDIVIDUALITY

In type regions each type has its own features distinctive from those of other types. For instance, the climatic features of the Mediterranean type is different from those of the middle-latitude west-coast marine type or the low-latitude west-coast desert. All the regions of the same type distributing in different continents bear common climatic features of similar origin, but each of these individual regions also exhibits its own peculiarities. For example, the Mediterranean climate in North America manifests itself in cool-summer and hot-summer two subtypes. In rainfall regime, the summer three months largely account for 1% or even less of the annual amount. Also, of the low-latitude west-coast deserts, the one along the west coast of Peru under the influence of powerful cold Humboldt current possesses some marine character. Moreover, it extends lengthiest in latitudinal extend, lying on equatorward side nearest to equator of all the west-coast deserts in the World. While demonstrating the common features of west-coast deserts it displays its own peculiarities, reflecting the distinctive character of the relevant continent in which it is located.

This shows the dialectical relationship between generality and individuality, which enables us to deepen the recognition of the distinctive character of a region. There seems no doubt that this approach will promote raising teaching quality and there is plenty of room awaiting our sustained efforts for the purpose.

IV. PROBLEM ORIENTATION

Since the 1970s there has arisen a strong tendency of revitalizing regional geography. In response to this proposition many geographers put forward the proposal of problem orientation. Some hold that regional geography is not looked upon as an academic pursuit without any practical value. In order to bring regional knowledge into full play in understanding and contribution to solve the relevant practical problems of importance, this is a proper and effective approach.

The problems about regional geography as a longstanding branch of the discipline should take priority. In this regard, opinions differ, yet there is general agreement among geographers that the problem about man-land relationship should be the central theme. In the case of regional physical geography, either in academic pursuit or in teaching we should not overlook the work of man, as the present geographical environment is a partial creation of human activities. Problems of environment, population, natural resources, regional development are the ones of great importance in contemporary world. In this context they are numerous and of different levels. Regional geography including regional physical geography with problem orientation will have a bright future in prospect.

In response to recent trend the author wrote in the 1970s two articles entitled "Latin American Countries Struggles to Safeguard Maritime Resources" and "A Geographical Analysis of Peru's 200-nautical Mile Maritime Rights". Both were written in Chinese, as examples of problem orientation in regional geography. The former was published in International Edition in People's Daily, Beijing, and was soon translated into English, reprinted in "Peking Review". It was beyond the author's expectation that this article was so well received. This fact implies that regional geography with problem orientation will surely be vigorously developed.

The latter is a single topical study about Peru's 200-nautical mile maritime rights. It represents an attempt to expound her up right proposition and consistent stand by organizing geographical knowledge in the context of regional geography. Firstly, the paper explained the necessity to safeguard the maritime resources, particularly the anchovy fish resources, to the development of Peru's national economy. It is not only because anchovy furnishes the basic raw material for fish meal which supplied an important item in export trade, second only to minerals at the time. Also, there are millions of sea birds on offshore islands rely on anchovy as their food. The manure pile had once accumulated to more than forty meters at its maximum thickness under the desert climate. Here it is called guano, a valuable fertilizer rich in nitrogen, phosphorus and potassium, which is used in the production of cash crops such as long-fibre cotton, sugar cane, etc.. Besides, the shipbuilding industry in Peru is virtually affiliated to anchovy-fishing. It is evident that the spatial connections of different economic sectors, justify the protection of maritime resources particularly the anchovy for the development of Peru's national economy.

On the other hand, the width of maritime rights extends 200—nautical miles outward from the shore. As no data about the distributional width of anchovy is available the only authentic information available that can be used as an outward demarcation line of the width is the 200 miles (Statute miles) where it is reported that the zooplankton never diminish in intensity of reproduction. This figure corresponds to 174 nautical miles. As far as the available information goes, this would be the minimum width of distribution of anchovy. It can help us infer that the actual width must be more than the figure would suggest. Consequently, the width set to 200 nautical miles is reasonable.

This problem bearing a regional as well as an international character has been much discussed and contented in the 1970s in related international conferences. Peru, one of the earliest developing countries for the proposition, is scientifically grounded on her regional geographical conditions. Therefore, elucidation should be approached from both economic and physical geography, each supplements the other. Otherwise, it would be a lopsided view, one-sided approach to the program. The article has received favorable comments since publication. This instance illustrates obviously that in many cases regional geography in dealing with problems renders it necessary to have physical and economic or human geography working together or permeating each other. It suggests that this branch of geography has a role of its own to play in understanding and elucidating problems of world significance. In geographical teaching, if greater attention is paid widely to problem orientation, it will in all likelihood explore and develop students' interests in geography at large.

V. PRESENTATION OF REGIONS BY SELECTION

In teaching regional geography in general one of the difficulties is with the presentation of individual regions. There are two factors responsible for the situation. One is the over-rigid compartmented structure that militates against lively, vivid lecturing or teaching activity. The other is the lack of a well-developed theoretical base that usually makes regional accounts highly repetitive of considerable common ground. Thus, the students would become weary of such tiring lectures. The author was also at a time in an awkward predicament. For extrication from the difficult positions, selective presentations of individual regions has been adopted. What are the criteria upon which regions are to be selected? They are not rigidly stipulated, but by and large conform to a general principle that any region to be selected must have as an attribute geographical significance or implications. For this purpose, in late 1950s when the author undertook the course of regional physical geography of South America for graduate students, in dealing with regions only two of them were selected: the rain-forest-laterite Amazon lowland and the low-latitude west-coast desert. They were chosen on the basis of typicalness of synthetic character (of similar regional type) and of striking regional individuality respectively. Other criteria for selection are problem orientation, dynamic change of regional character, exemplification of theory,

etc.. It is obvious that among the rain-forest regions throughout the world, the Amazon is not only the largest in area and most compact in form, but also the best developed in relevant regional character. Owing to being a lowland plain lying near the equator on both sides, its regional character manifests itself fully in all relevant aspects, such as equatorial climate, rain forest, laterite soil group, equatorial river regime and fauna of new tropical type.

The low-latitude west-coast desert region was chosen because of its outstanding regional individuality, which has been mentioned previously. The criteria of problem orientation and the dynamic change of regional character may be applied to this region just as well. Each region thus selected bears a central theme around which the regional knowledge and relevant materials are to be purposely organized. It is almost certain in theory as well as in practice that the way in which individual regions are selected according to certain proper criteria for presentation is to all intents and purposes more desirable than the over-rigid outmoded compartmental structure of notion and poverty of idea. This will lead to a lively, vivid lecture with substantial and analytical argument. From these lectures, students can not only obtain the necessary geographical knowledge but also cultivate their ability to analyze and learn preliminarily how to solve problems. It will surely benefit teachers and students alike, and the teaching quality can thus be raised.

VI. COMPARATIVE METHOD

Lastly, a few words must be mentioned about comparative method in teaching.

Comparative study has been used and had made considerable contribution to the progress of geography since classic period in history. A.Humboldt and C.Ritter employed comparative method in pursuit of the knowledge about the intrinsic linkages existent in geographical environment and phenomena. In regional physical geography it is often employed in contrasting inter-regional differences so as to make points prominent therefrom. For instance, in dealing with the constraint of west-coast marine climate in North America, only by comparing with similar climate of West Europe in both degree and areal extent including both latitudinal and dimensions can the contrasts manifest themselves. The unique spatial pattern of physical structure of North American continent is another instance. Only by comparison with other continents can the overall framework come into prominence. Examples of this kind are too many to mention one by one. In a word, the comparative method used in teaching can consolidate what the students have learned, broaden their geographical horizon, explore and cultivate their interest, raise cognitive ability and level of understanding. It can upgrade our teaching quality greatly if used properly.

VII. CONCLUDING REMARKS

A vast amount of articles had been written primarily on geographical education of middle schools but few about that of higher institutions. This paper in discussing innovation of geographical education about these institutions with the course of regional physical geography as an example. It is intended to do away with the outworn popular perception that the primary role of teaching geography is in place knowledge in its most simplistic and elementary way and to express the belief that raising teaching quality of geography in higher institutions is of no less importance than in middle schools, so far as elevating the status and revival of geography particularly in higher education and research is concerned. Innovation is one of the feasible and effective measures to alleviate the predicament in which many geography departments are reported to have found themselves.

The ideas and perspectives mentioned above have been practiced by the author since late 1950s. They represent an attempt of the author to innovate the course of regional physical geography from geographical perspective to structure the text to method of presentation. Although they are far from complete and call for sustained efforts to improve and rectify, yet, the preliminary efficiency has convinced the author that the higher education of our discipline is in pressing need of innovation and thereby upgrading quality.