

Paper IV

Selected Ways We Learn Geography

Some Ideas on Learning Geography and Their Implications for Teaching Geography

When one first thinks about the question How should I teach geography?, another question should immediately come to mind: How do people learn geography? Because few teachers know very much about how people learn geography, it is reasonable to think about the basic ways people learn and then apply these to the study of geography. This section will look, in a simplified way, at the various ways people learn from the cradle to the grave. Our objective is to very briefly and generally look at ways people learn and then to give examples from teaching geography. Teachers are encouraged to apply these learnings to their own understanding of the discipline and then to use these new ideas in teaching their classes.

The following is written for the teacher of geography, not for the educational psychologist. It is an attempt to interest teachers in learning more about learning theory in order to improve day-by-day classroom instruction. An important point to realize is that when using the ways, perception to memory, teachers can lecture and make assignments, but when the other ways (comparison, experimentation, etc.) are utilized, the teacher becomes a director and the students become more involved in the learning activities.

People learn in many ways. Some people are able to conceptualize more easily than others, some are more analytic, and for some it is easier to transfer learning. Nevertheless, each teacher should think about how knowledge is acquired. Lack of a complete understanding of the learning process should never be a rationalization for leaving this thinking undone.

Following is an attempt to discuss some of the different ways people learn. They are first defined and then an example is given to indicate how they might be related to teaching. These

ways are not a complete list of the ways people learn nor are they in a fixed order. This part of the paper is provided as a motivation, or challenge, for every teacher to think more about how students learn geography.

Perception--"Experience is the best teacher" is an old phrase, but it conveys the idea of perception very adequately. Perceptive learning occurs through the senses and is the most long-lasting and most basic form of learning. We learn perceptually from the cradle to the grave. Teachers should identify the level of perceptive learning each student brings to the classroom. Of course, it is impossible to do this for each student for every learning experience, but it is important to know as much as is possible about the background the student brings to the lesson.

Generally, teachers identify the perception level of students by question and answer and by pretesting. A more time-consuming method is by discussion. To develop perceptual understandings the instructor may use pictures, records, models, or other media. For the geographer, the use of maps is an important example of perceptual learning. These tools are necessary because first-hand experience is not usually possible in the classroom. When possible, a field trip is an ideal way to develop perceptive learning. However, to be successful, a field trip must be well organized, causing the learning to be focused on specific experiences and observations, not just a random experience out of the classroom. Perceptual learning may give the student knowledge of a specific river, a pollution source, a sinkhole, or a field of celery. Too many times we teach about Florida assuming the student knows what the Suwannee or St. Johns river looks like. If the hometown of the student is Miami, he or she may only "know" perceptually the Miami River. For the student to think about the Miami River of her experience when the teacher is discussing the idea of a "wild river" would be a hindrance to learning.

Concepts--There are many definitions of the term concepts. Concept may be considered the image, or response, that comes to mind when the learner is confronted by a stimulus. For

example, the concept "river" should elicit responses such as water flowing from higher to lower levels, banks, mouth, source and any other associated ideas stored up about rivers, usually from perceptual learning. The level of the response is, of course, broader in the more educated person. Concepts may be rather simple, such as sunshine, or more complex, such as environmental quality. Complex concepts are developed as more and more cognitive data and perceptual learning is generalized into useful learning building blocks. For example, urbanization is a very complex concept that requires at least a general understanding of many terms, such as, population concentration, economic activity, various aspects of transportation, and even another complex concept, social and physical infrastructure. In developing lesson plans a teacher needs to be aware of all those simple and complex concepts used to reach the teaching objective.

Generalization--Much discussion has occurred about teaching, or having students develop, generalizations. It is more easily said than done. However, we can understand a generalization as a rational process by which one makes a judgment or a statement which applies to a whole class of items, often on the basis of experience with a limited number of the class. Simple generalizations are that Florida has a tourist-based economy and Florida has sandy, well-drained soils. Of course, neither statement describes all of the state. An example of a more complex generalization is that the physical environment suggests and limits human activities but does not dictate them. Or, the significance of the physical environment is a function of people's objectives, their attitudes and perceptions, and their level of technology. These two generalizations are just examples of how teachers can use this type of learning to develop curriculum. Students should be encouraged to develop generalizations inductively from the observation of data and to deductively test generalizations by gathering and analyzing data to support the general truth and to identify exceptions.

Memorization--On too many occasions it has been said that teachers should not have their students memorize. This statement should be qualified to mean that memorization should

not be used as an end result of learning. It is actually a legitimate way to learn but it is too often misused. On occasion, it is desirable to learn something by rote to facilitate a planned, higher level of learning or application. To have a student memorize something in order to recall it for test purposes is the lowest level of learning and generally a poor teaching strategy.

Comparison--The considering of two things with regard to some characteristic that is common to both, as the likening of one nation's resource base to that of another. Comparison allows a student to increase his/her level of understanding by analyzing relative values. Geographers compare the benefits of the relative size or shape of two nations or their location in the high or low latitudes. Many activities can be developed involving the comparison of physical, population, or economic factors to increase the geographic understanding of places.

Experimentation--This way to learn entails the carrying out of an exercise under controlled conditions. It helps to verify known or suspected knowledge and introduces new learning in a defined area of investigation. It may be used in the application of general ideas to the local area and in the testing of hypotheses. The class might discuss the economic and recreation value of various types of vacation resorts. Pictures might be given of seven different resorts from which students would select their favorite. The next activity in the experiment would be to analyze why different students chose different types of resorts.

Categorization--This way to learn step allows students to gain the ability to group data into classes according to common characteristics, such as soil, climate, landform, etc., under natural or physical factors, and religion, occupations, and health under cultural phenomena. To think critically students must be able to categorize land uses, economic activities, ecosystems, types of wastes, etc.

Association--This process helps students learn by connecting phenomena in their temporal or spatial contexts. For example, the teacher is encouraged to help the learner associate various aspects of the physical environment with factors that influence the location of an industrial site such as water and raw materials. The association of low education levels, low technical skills, and low wages might be made in regard to jobs in the service sector of our economy.

Relationship--Very closely connected to association is relationship. The difference is that relationship entails understanding of the effect various things have on one another. Recognizing and postulating relationships in the physical and cultural environment are encouraged as an important part of analysis and synthesis. Students can be encouraged to see the relationships between large successful regional shopping malls and good transportation access and the proximity of a minimum number of people with high disposable incomes. Another relationship might be made between the historical development of industry, the Piedmont area of the Appalachian Mountains, and the existence of water power.

Transfer--Transfer is a very important mental skill to develop. It allows people to focus their previous learning experiences on the job of understanding new experiences. The importance of any model is not only its use in a specific instance, but also its application to the analysis and solution of new problems. One example of transfer would be the application of the model presented in this paper to the understanding of places at different scales, or the transfer of the student's understanding of the location factors of land, taxes, labor, raw materials, and market to various economic activities.

Analysis--Life is full of complex structures and events. It is specifically the duty of the teacher to help students identify and separate the various parts of a complex. Analysis also includes the establishment of relationships and the organization of the various parts of a structure

or event. One of the goals of analysis is extraction of generalizations that may have some universal validity; therefore, transfer value.

Synthesis--This is, generally, moving from the simple to the complex. It is the construction or reconstruction of the various parts into a whole, after comparison and evaluation. Students should be led to understand that the character of any place is the sum total of the existence of each of the subheads in the model provided in this paper. The unique synthesis of cultural and physical phenomena makes every place different. Geographers call this areal differentiation.

Creativity--Sometimes given as the highest form of learning, creativity is often missing from the classroom. This is a mistake. Creativity is not an activity only for the art, music, or industrial arts class. It is the act of invention, or exploring new or unique ways to understand or solve old problems. It is the new arrangement of old data into a useful or pleasing original structure. Usually, creativity is divided into three stages: incubation, illumination, and evaluation. One factor, or part, of a familiar, complex whole can be changed so that students have the opportunity to project a new or creative result. This is one way the teacher can have students utilize known material in a creative exercise. For example, the teacher might obtain, from the local planning department, a traffic map including trip counts and have students reorganize traffic patterns to achieve better flow, or they might speculate on the impact a zoning change would have in their community. Some teachers have had students utilize the generalized systematic maps of the world to have students locate an imaginary island and describe its physical and cultural characteristics using known patterns and processes.

Teachers should think through this list of learning ways and keep them in mind as they develop every lesson plan and activity. Too many teachers are not cognizant of the importance of perceptual understandings brought to a class. They are unaware of the importance of concept-

and-generalization development, and they lean much too heavily on memorization both in learning and the evaluation of teaching. Often the other ways are not used at all or they are used by the teacher without knowledge of what he or she is doing. Students should understand that learning in school is not accomplished just to pass a test, but that it has transfer value to appreciation and problem solving in later life.

This paper does not list one type of learning over another. All are important. Probably no two teachers will utilize the “ways” in the same way. Teachers teach successfully in different ways but everyone can benefit from close examination of how they practice their craft. All teachers should be aware of each way, what it is, and how they might use it. It is possible that with study they might add to or modify the list. Certainly they will realize that the ways overlap and that often they are related in the process of learning. Nevertheless, teachers should keep this list in mind as they develop every lesson so students may be directed into as many of them as is constructive. This will encourage more student participation and a higher level of learning in the classroom.