

## GEOGRAPHY AS A CATALYST IN SPECIAL EDUCATION

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There is a slight possibility that the people writing the California Education Administrative Code were amateurs. It is also possible that it was thrown together hodge-podge to try to satisfy a number of pressure groups. I prefer to believe that well informed conscientious educators wrote it. By now you are probably wondering what that has to do with the subject of this paper. Let me quote from Paragraph 228,

Curriculum Content: Emphasis shall be placed upon the fundamental school subjects, including reading, writing, arithmetic, spelling, English, history, and geography. Adaptation in such prescribed courses may be made, as the learning characteristics of the minors in the program make necessary.<sup>1</sup>

You will notice that the subjects are even listed in the correct order. When mixing ingredients to make something, a person measures each item in specified amounts and in prescribed order, puts them in the pot. When he is ready for "the happening" he dumps in the geography and stirs like ----. If the task is properly done, like the Sorcerer's Apprentice, he gets "a happening."

Geography, being spatial, encompasses all of the other subjects listed above. That statement looks hard to defend, but reading is little more than the recognition of the spatial arrangement of letters which are associated with sound and meaning. Letters themselves are identified because each occupies a definite space. Writing and spelling are orderly and meaningful arrangement of letters and words, again in space. It may seem facetious to apply such a statement to English, yet, the

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movements and amalgamations that developed the English language are geography. The historians will no doubt take violent objection but history is only the record of a space in time, of a space in the universe, and, therefore, geography. Try to solve an arithmetic problem without consideration of the spatial arrangement of the numbers and you are guaranteed an incorrect answer. I know that this is oversimplification and a slight puffing of the wares, but if it will cause a little controversy and induce a lot of thinking then I will accept the barbs.

Now let's get down to cases. How do we use geography as the catalyst in special education? Dr. Edward Fry, in *Reading Instructions for Classroom and Clinic*<sup>2</sup> states,

Diagnosis might provide some insights but basically I have concentrated on a more positive goal of just accepting the child "where he is" and then moving him towards the goal of just becoming an effective reader.

He goes on to explain the steps in teaching reading. Under the general heading "Tricks of the Trade," and the sub-title "Interest," he says,

Children are poor actors when it comes to feigning interest. Learn to recognize the signs of fatigue and lack of interest, such as losing the place in oral reading, daydreaming, fiddling with objects and so forth.

Discipline will not make boring lessons good lessons. The teacher must be skillful enough to present lessons that are easy enough to provide success, but difficult enough to provide challenge and growth. Try to find reading materials that have natural interest for the child. Turn some of your drills into competitive games, again keeping in mind that each child must experience some success.

Dr. Fry also says to teach the "instant words," those which are commonest in the English language, arranged in order of frequency of occurrence in reading material and in children's writing. A child, he says, should learn to recognize them instantly for ease in reading because they occur so often. They correspond roughly to the reading difficulty level of materials. Groups marked I are

approximately first grade. Groups marked II are second grade, and so on.

Let's look at the difference in teaching the instant words in the traditional manner and doing it geographically.

The traditional teacher says, "I have written our words for the week on the chalkboard. Copy them. Now, we will all say them together. During the week we will also learn their meanings and how to spell each of them." The following is on the board:

I	YOU	WANT	FROM	BLOCKS
TO	AND	FIND	HOME	SCHOOL
IS	THE	LIVE	YOUR	WHERE
IT	HOW	THIS	HOUSE	MANY
ON	MAP			

The students all copy, some finish quickly and become restless. All finish. Now, who can say the first word? Susie! "I," all repeat, etc., etc. Incidentally, they read down the columns instead of stressing left to right across the line.

Using geography as a catalyst, the teacher would hand each student a map of the school area. She would have on the chalkboard the following directions: I want you to find the school and the house where you live on this map. How many blocks is it from your home to school? Naturally, a short course in map reading follows. Words like north, south, east, west, top, bottom, lines, and others are introduced as a bonus. Students go to their study groups and work on completing the assignment. Each group is required to use the dictionary and write the meaning of each word. Each student is required to write five sentences using different words from the list in each sentence. The search for school and homes, using words and counting blocks, will continue through that period and students will take the results home. Those finishing first can start the crossword puzzle made with the words, work the word jumble made of the words, or play an anagram game using the words. With this kind of class assignment the teacher is free to move about helping individuals and groups as required. Yet, she has used the exact same words.

When asked by the Minister of Education in Australia the most important thing that could be taught to students with learning problems, the Minister of Labor said in a letter dated September 17, 1971, "Teach them to move independently from home to work and to shopping and social areas. This will be the greatest help. Let industry teach them their duties." Activities like the one above is the first step in doing just that. It also introduces the students to the concept of representing space on paper and a general idea of the concept of scale.

I think that every book on teaching the learning disabled devotes several paragraphs and/or chapters to "interest and changing behavior." I have observed that every child with a learning disability will, by the time he or she completes the sixth grade, develop a unique behavior that will mask both the real child and the disability. Dr. William Glasser<sup>3</sup> says, and I agree, that before you can effectively teach a child both you and the student must come to know the real child. Let me tell you that it is easy to get acquainted with two pairs of hands in the mud while building a relief map. I wonder if you realize the amount of math and the vocabulary that can be taught building a relief map? Units of measurement, scale, elevation, and slope are a few of the words and concepts that are much easier to explain here than on a chalkboard. Learning the necessary math becomes a means of doing something instead of a recitation chore.

When a student says "I wonder," an alert teacher will jump to it. I can remember a time we were going to do a plant and animal profile, starting at the river listing all the plants and animals there, then moving away from the river to the irrigated farm areas and doing the same, and then a final move to the dry bush which would complete the profile when combined. The field work was to take three days, one in each area. This was not a science project but a vocabulary building and writing exercise. Let me also explain that this was a seventh grade educationally handicapped class of 23 students, in Western New South Wales. As we arrived at the river someone said the magic words, "I wonder

how deep the water is?" Someone else, "I wonder how fast the water is going?" "How wide is it?" "Is it cold?" There were probably a dozen "I wonders" before I said, "I don't know but we could find out." The cry was, how could we?

We sat in a circle under a big gum tree and began to speculate (brainstorm) about the questions and ways to find the answers. We decided to answer the following questions:

- a. How wide is the river at this point?
- b. How fast is the water moving?
- c. Does the water at the top and bottom of the river flow at the same rate?
- d. What is the temperature of the water at 10 AM and 2 PM daily?
- e. What would a cross section of the river look like?
- f. What life forms exist in a cubic foot of river water? Here I got the science teacher involved.
- g. How much water would go past this point in 10 minutes?

We devised our own instruments and methods of both, estimating and getting good close answers, timing a floating object over a measured distance to get flow rate. We tied a partially filled bottle that would sink near to the bottom to one that would stay on the surface and observed them as they were carried downstream to solve question c. We also spent a half day every day, except the two when it rained, for the next three weeks in our swim trunks at, in, and under the river. The students took turns acting as safety officers and as directors of individual projects as well as workers. I can't begin to describe in this paper all the learning that took place, or the joy of the group when an experiment was successful. When something we tried didn't work for the first time the members of the class were able to accept failure as only an experience that could be tried in another way. As an added bonus, the two members of the class who could not swim learned to do so. If you are going to try to repeat this, be sure to select a slow-moving, not-too-deep stream.

Here are some additional words of advice to teachers. Not all of these kinds of lessons work out as you plan them, so be able to accept a little failure yourself. You might save yourself

some humble pie if you listen to the "I wonders" and let the students do most of the planning. Guide so that learning is a consequence of doing. We never completed the plant and animal profile that I had planned.

If you want to teach children to use language then let them use it. Plan your program so that they will have to use language, both oral and written, in planning theirs. After some short one-day trips planned by the students with my help, they wanted to go for a long one. I said, "I am too busy; if you can organize this on your own, we will go. You may have up to six periods a week to plan this, provided your other studies are kept current." There was a little grumbling but they knew me well enough to know that I would help. It was policy that everyone in the class would attempt everything; if plans called for a letter, then every student would write the proposed letter. Each was read to the class and discussed. The adjudged best parts of several letters were then combined into the official class letter. The following written language items were completed while planning this trip:

- a. Letter to the principal requesting permission to make the trip and an outline of the educational benefits we expected from the trip. It also included an estimated cost and proposals to raise the funds.
- b. Letter to the bus company to find the cost.
- c. Letter to the bus company scheduling the bus.
- d. Letter to the manager of each of five places of interest we wanted to visit.
- e. Letter to superintendent of each of three public camping areas we intended to use.
- f. Letter to the hotel owners where we intended to stay the third night.
- g. Plan for travel timetable.
- h. Menus for meals to be cooked with quantities and cost.
- i. List of personal gear and clothing to be taken.
- j. List of group gear to be taken.
- k. Justification by each student of the amount of spending money each planned to take.
- l. Plan to raise the money.
- m. A plan for a special study from each student.
- n. Letter to parents outlining plan and requesting their permission and assistance.
- o. Total cost breakdown and per-capita figure.

- p. A duty schedule.
- q. A safety and a personal conduct code.
- r. A proposed form of thank you letter to be sent to those giving assistance.

We started planning this trip when it began getting cold in May and finally took it when it warmed up the second week in November. I don't believe it is necessary to point out the specific things that were learned by the group. I will point out that the trip was a great success, not because the students enjoyed it but because of the things they learned in planning it.

Other examples could be recited but at the risk of redundancy. One can use geography as the catalyst in special education. I used it as such and the evaluation by my principal didn't say, "He is a good or bad geography teacher." It stated, "by innovation and application of sound educational techniques, all of his students have reached an acceptable level of literacy and personal behavior."

#### NOTES

<sup>1</sup>California Statutes, *Educational Code, Article 1, Section 6750*, 1973.

<sup>2</sup>Edward Fry, *Reading Instruction for Classroom and Clinic* (New York: McGraw-Hill, 1972).

<sup>3</sup>William Glasser, *Reality Therapy* (New York: Harper and Row, 1971).