

Reflections on Curriculum, Teachers, and Teaching

Unstructured, ambiguous materials give teachers the opportunity to inject their own creativity and talents into the curriculum.



Bob Samples

There is little that is more spiritual than seeing teachers teach a subject they love using approaches they themselves had a major part in designing. That's a difficult thing to find in these days of standardized texts, tests, and courses of study. While teacher-created courses result in variety and diversity, prepackaged standardized materials result in sameness and uniformity.

My own experience in working with federal curriculum projects during the 1960s and 70s has proven to me that sound academic programs need not sacrifice spontaneity and enjoyment in the classroom. Three curriculum projects for which I served as a consultant-writer or program director stand out in my mind. These were the Elementary Science Study (ESS); Man: A Course of Study (MACOS); and the Earth Science Curriculum Project (ESCP). I served as director of a fourth project, Environmental Studies for Urban Youth (ESSENCE).

Each of these projects was characterized by a commitment to scholarly content in the natural and social sciences, yet there were remarkable differences in the psychological perspectives that guided the learning environments of the classrooms. These differences had much to do with the role of teachers in the creation of learning materials. Both ESS and MACOS considered teachers integral in determining *how* to teach the final material. They were basically used as reality checks for scholars and psychologists who were committed to content and learning theory. While the program developers listened carefully to the teachers, the teachers actually had little to say in the content and structure of the materials.

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The teacher role in ESCP was much the same as it had been in ESS and MACOS, but even more pronounced. Teachers' primary influence was most evident in the Teachers Guide rather than in student materials. They focused on the "how to" in developing the Guide.

Making Use of Teacher Talent

When given the opportunity to develop the Environmental Studies materials, I decided to explore an alternative role for teachers, one that would recognize teachers' talents. Since my experiences with the other three projects had exposed me to hundreds of master teachers at all grade levels, I had access to a meadowland of that talent. We therefore invited teams of master teachers from elementary and secondary schools to create curricula around an ambiguous core of four topics: change, mapping, counting, and measuring. Some of these teachers were content specialists at the university level, but the basis for their invitation was their history as charismatic, competent teachers. Without exception, all these teachers—elementary, secondary, and college—loved their work, and were loved and respected by their students. Their charge was simple—to write the most exciting assignments they could and, if possible, to relate these assignments to the four topics.

The results were remarkable. We found no stratification of subject matter or grade level. The college people felt that good assignments were good, regardless of grade level. The elementary and secondary teachers affirmed this, and wrote assignments that the college personnel were charmed to use at their level.

To facilitate the process of inventing assignments, we suspended concern about format and reading level (a great

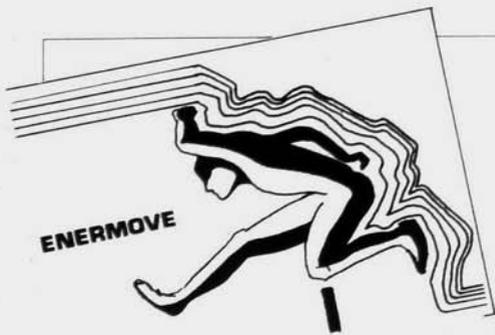
concern in all the previous projects). Instead, teachers shared their efforts at invention through roundtable discussions. The whole process had the air of impromptu theater. Everyone's work was interrupted by the most recent great

idea, as participants loudly announced their latest undying prose in the form of an assignment. Each pronouncement elicited a shower of options, refinements, and extensions. It wasn't long before the playfulness and excitement

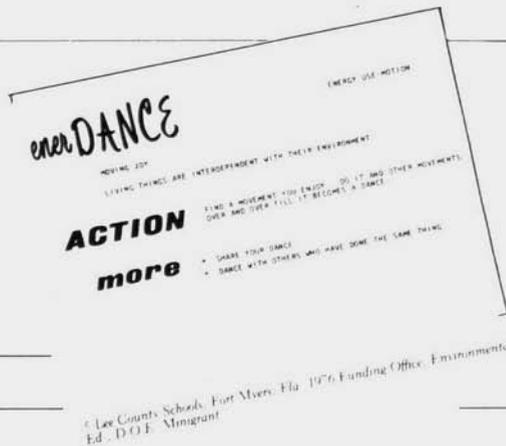
Bob Samuels



An elementary school student creates his own Environart, an Environmental Studies assignment.



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“To avoid the psychological suggestion that sequence was established by the order in which the cards were arranged, we packaged them in disarray in an envelope.”

created a clear-cut understanding that what we were doing as a supposed “curriculum development group” was exactly what we wanted to have happen in the classroom.

Teacher-Oriented Materials

The awareness of this relationship—our curriculum efforts as a metaphor for classroom experience—then affected all the information we needed for format and final form of expression in the materials we produced. First, we decided that we were developing materials for teachers, and not for students. That is, the assignments would be read aloud by the teacher to the students. This eliminated reading level problems. The teacher could translate the assignment into any appropriate level of comprehension. For the younger and second-language students, this approach honored the much more sophisticated level of children’s oral language versus their reading and writing abilities.

The second major decision was that assignments would be characterized by ambiguity rather than by specificity. *Ambiguity*, we decided, *nurtured decision making*, while *specificity nurtured performance*. We were not anti-performance, but the long years of emphasis on behavioral technologies had provided more than enough specificity in instructional materials.

A third characteristic of the Environmental Studies materials was their lack of structured order. Clearly, a concept like “change” could be addressed in science, social studies, art, music, and physical education, as well as every other major content area. Mapping could be done in geography, astronomy, economics, and psychology. We could count and measure anything. The result was a transdisciplinary pile of exciting and ambiguous assignments. An immediate issue, then, was how to present

them in book form. The problem was so perplexing that we finally abandoned the idea of a book. We decided instead to publish “assignment cards,” with each assignment described on a separate card.

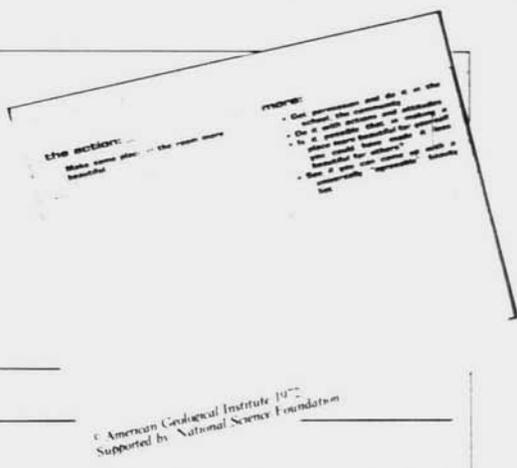
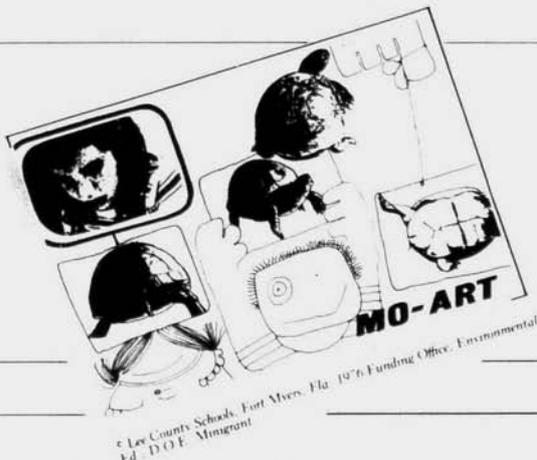
The structure created by sequence is also a central part of most curriculum design, yet the four thematic organizers—change, mapping, measuring, and organizing—could all be interchanged and used in any order. To avoid the psychological suggestion that sequence was established by the order in which the cards were arranged, we packaged them in disarray in an envelope. Individual assignment cards were arranged randomly front to back, upside down, and sideways. This told the teachers—tactilely and visually—that they would have to make their own sense out of these materials.

As much as all of this may seem a kind of sanctified folly, I believe that the experiences that have emerged in the ten and more years since this effort are worth noting. The creation of the Environmental Study materials proved to be an exploration of:

- The nature of instructional materials in which the teacher is central
- The effect of ambiguity as a basis for instruction
- The effect of assignments given orally
- The effect of intentional transdisciplinary and multimodal approaches in assignment patterns.

Favorable Reactions

Once these materials become available for classroom use, we noted a series of remarkable outcomes. Among the most significant were the attitudes of teachers and the actions and attitudes of the students. At first the teachers seemed to feel that the assignments were “underdeveloped.” The ambiguity bothered



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them. Once this apprehension wore off (typically after three assignments), they became excited by the diversity and novelty of student responses. The students in turn began to realize that there were many "answers" to each assignment. We saw a remarkable shift in the ways students and teachers began to honor diversity and multiple options. Perhaps most rewarding was the emergence of a more comfortable and congenial learning environment, characterized by increased flexibility and fluency in student and teacher thought patterns.

In the years since these initial explorations, my colleagues and I have repeated the process innumerable times in school districts throughout the U.S. and Canada. For those involved there seemed to be a remarkable payoff. Spirits were high, enthusiasm ran free, and follow through was a sure thing. One administrator, at one time committed to behaviorism and performance specificity, summed up the feelings of many when he said "This is a sure fire burnout cure." Others saw it as a way to rejuvenate student interest in school studies.

Reinstating teachers to a central role in curriculum seems to create an instructional setting more in line with the inevitabilities of the future. Tomorrow's world does not promise homogeneity. The shift from the industrial era to the information era is far more than a slogan. None of us truly knows how to prepare students for that world, but it is clear it will be a world characterized by ambiguity and change. The responsible educator will try to create a sense of competence and excellence for that changing world. □

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