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RESEARCH IN ARTS EDUCATION

A Federal Chapter

by Judith Murphy and Lonna Jones

MATCH +
Validated exhibits

U.S. DEPARTMENT OF HEALTH,
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Bauhaus basic design course, including the mathematical concept of symmetry. It was his goal to make this knowledge accessible to the design student, on his terms.*

The net result, by 1974, was what Mr. Huff calls a "primer," six slim booklets handsomely designed, containing "a minimum of text with a maximal richness in visual imagery."³ The OE grant paid for researching these booklets, a mock-up of the complete set, and printing of one section. Huff ran into funding tribulations, but eventually grants from the Mellon Foundation and the National Endowment for the Arts, mid-1974, funded publication of all but one section. Meantime, Huff had scored some success introducing his material to the student bodies and faculties of various universities, including Yale, Harvard, Princeton, and New Mexico, as well as other institutions in Canada and Europe. The work had been acclaimed by such notables as the late Louis Kahn. Huff, now teaching in the School of Architecture and Environmental Design, State University of New York, Buffalo, plans to introduce his primer into high schools, where he feels it might have great effect. His target is students, rather than "highly intellectually formalized instructors."

Other Fields.—As for the *how* of

teaching in other fields, the multimedia project called MATCH (Materials and Activities for Teachers and Children) was a standout in museum education. This project was an elaborate and highly sophisticated venture, funded mainly under title VII of the National Defense Education Act (NDEA). MATCH was devised and directed by Michael Spock, director of the Children's Museum (Boston, Mass.) since 1962, and by psychologist Fred Kresse. The MATCH boxes are not matchboxes, but are sizable kits. These kits—sometimes 2 or 3 cases per "box"—weigh from 30 to 100 pounds each. They contain a great variety of materials related to a given topic of study, and are designed to be used either 1 hour or 90 minutes daily for 2 to 3 weeks by a teacher and 30 children.

The 16 original study topics ranged from animal camouflage to medieval people to musical shapes and sounds (about half were related to the social sciences). Though the prospective audience was students from kindergarten through high school, most MATCH collections were aimed at children in the upper elementary or intermediate grades. After testing in Boston schools and intensive development, these kits (now totaling six) are being produced

*The "inverted seashell" on the cover of this report is the work of one of Huff's design students from Carnegie-Mellon University (see credit, cover 2).

and distributed commercially. In 1972 the American Institutes for Research included the MATCH program among 20 winners in their search for programs "which evolved from educational research and gained acceptance in schools in recent years."⁴

A few years ago MATCH was 1 of 10 projects that toured the United States in an OE-sponsored mobile van and visited teacher workshops. MATCH was the only project in any way concerned with the arts. As it happens, MATCH's relation to the arts goes deeper than its museum base, its use of such art forms as film, photography, and recordings, and its occasional bow to the arts in topic choice (music, poetry). Whereas it stands as one model of effective museum education, its broader import for the cause of the arts in education is MATCH's emphasis on nonverbal learning and the integration of the nonverbal and the verbal—i.e., in the importance of the *affective* component of learning. The original proposal to OE stated, in part, the problem and the purposes of the project thus:

Much of learning is non-verbal. Instead of being mediated by words it is mediated by things. Because they lack time and money, most teachers . . . do not possess the vocabulary of things they need to communicate effectively with their pupils. And so certain crucial experiences never occur in the classroom, others occur only partially, while still others are so abstracted that distortion sets in. The result is that some things are not learned at all,

Inside the MATCH Boxes

The 16 original MATCH boxes contained many kinds of things, including these:

Real objects: 2,300-year-old Greek pottery shards, chopsticks, navigator seeds, starfish, whale's tooth, Algonquin arrowheads, seal skin, beaver-chewed log, stuffed owl, old purse, Netsilik bow drill, clarinet, lead type, deerskin, bones, steel drum, harpoon, map measurer, pumps, syringe, buckets, mops, hammers, goggles, pipes, funnels, psaltery, stethoscope.

Reproductions: falconry lure, medieval clothing, Japanese photo album, Greek coins and statues, Indian leggings.

Models: city buildings, igloo, mud house, lock model, birchbark canoe, sea ice at Pelly Bay, folding rock strata, figure "4" trap.

Films: filmstrips, film loops and slides and photographs of almost everything.

Recordings: a Netsilik woman telling a story in the Eskimo language, a medieval shrew recounting her experiences at court, bird calls, songs of the voyageurs, reminiscences of a Great Lakes captain, an Eskimo myth, an Algonquin's dream.

Equipment: tape recorders, various projectors, screens, extension cords.

Software: charts and diagrams, floor plans, worksheets, maps, bird stickers, sort cards, word cards, recipes, student guides, character books, reference books.

Supplies: cinnamon, olive oil, seal oil, geodes, dry mud, cranberries, ink, paper, chemicals, diorama kits, soapstone, magnetic tape, parched corn.

others only superficially, and some are probably mis-learned.

This lack of appropriate media with which to convey knowledge and to develop skills and attitudes is particularly acute at the elementary level where the proportion of non-verbal learning is high. A non-verbal fact, such as the warmth felt in an Eskimo parka, may be conveyed by a single object or medium—in this case the parka. But patterns of media and activities are usually required to communicate non-verbal principles, concepts and relationships. . . . Though many media are recognized as valuable in furthering the dialogue between teacher and learner, very little is known about how to combine them for this purpose.

The problem, then, is to find out how to combine media in a way that will permit teachers and students to communicate with each other

on topics having a high proportion of non-verbal content.

Further, the developers have said: "A MATCH Box—in its fullest sense—is not the sum of its media, objectives, and activities. It is not a thing. It is more truly the experience, the happening, that occurs when the children and teacher encounter the Box." So the project stresses the play of spontaneous and chance conjunctions of mind and matter.

Another far less elaborate (title IV) project based in the Children's

Museum was Elizabeth Nicol's "Development of Validated Museum Exhibits." According to Richard Grove, then AHP's museum-education specialist, now director of the Henry Art Gallery, University of Washington: "This highly important project is still not widely appreciated, but it will be." The difficulty, according to Grove, was both the technical intricacies of the exhibit plan and the specific subject matter (animals' teeth). The point here was the *process* of museum exhibition developed and substantially validated. In brief the \$49,000 grant established that "highly significant" gains resulted (pretest to post test) from engaging children actively in "the collaborative venture of testing and improving the exhibits." Though the experimental design was drawn in scholarly fashion from contemporary learning research, all of it including the tests was made to seem like a game to the young visitors. The result was happy for them and conclusive to the experimenters.

WHAT TO TEACH

In projects focusing on the *substance* of curriculum, grants in the visual arts contrast markedly with grants in music. Again the music yield on the whole was richer. In both fields there were sizable disappointments.

Art in the Curriculum.—Related to

the improvement of the art curriculum were projects in museum education. Even though the museum in question might be geared to science, it was assumed that an effective educational program could provide an adaptable model for an art museum. A sampling of the visual arts projects will suggest their variety as well as their limitations.

A college curriculum for the use of glass in fine arts was developed by Robert Willson, a well-known sculptor in glass. Based on extensive investigations here and abroad, Willson came up with recommendations for a 5-year, federally supported program to make up for the comparative American neglect of this medium. Today, Mr. Willson is unaware of the creation of any college laboratory or department for teaching solid-glass art along the lines his report suggested. Yet he is far from feeling his project a failure. It made possible, among other things, a Miami exhibit of international glass sculpture in 1973—"the most important and largest showing of fine art in glass in this century, in Europe or America."

Then there was Ronald Silverman's development and evaluation of "art curricula specifically designed for disadvantaged youth." The primary purpose of this study was to find out how art education might best be conducted so as "to effect productive changes in