

# Let's Stop Dissecting the Curriculum

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*Elementary school children are drowning in a sea of subskills. We must not lose sight of the values of holistic learning.*

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Elementary education is being picked to pieces as surely as a frog in a biology lab. Fragmentation of curriculum appears to be subverting much holistic learning long supported by educators and critics alike: ability to communicate thought in written form, ability and desire to read books, ability to solve everyday problems in mathematics. The source of this trend can be found in social pressures, the knowledge explosion, philosophic positions, and promising educational ideas gone astray.

A series of observations prompted this article, but I hesitated because I thought the trend might be a local phenomenon. Now, similar observations have appeared elsewhere. Kepler and Randall<sup>1</sup> deplore the fragmentation of curriculum that has occurred under the guise of individualized education. Eisner<sup>2</sup> called attention to fragmentation in his Distinguished Lecture before the 1978 ASCD Annual Conference. At the most recent ASCD Conference many individuals from various

parts of the country expressed similar observations and concerns.

While many writers specify limited causes for fragmentation (back to basics, accountability, individualization), I contend that multiple forces are responsible, some deeply rooted in scientific and philosophic thought. This article will discuss the type of fragmentation taking place, examine some of the forces causing it, and consider the educational effects.

## Subject Matter Dissection

• *Language Arts.* Writing may be the most fractured of all. A proliferation of subskills is to be found in the kits (labs), workbooks, and ditto collections. Words are dissected into syllables, accents, sounds (phonemes), and morphemes—all with appropriate marks from someone's system of hieroglyphics. Sentences can be separated into parts of speech (using several different methods, different grammars, different terminology), functional sections, or

linguistic equations. Sentence patterns or functional types are analyzed, mimicked, expanded, and contracted.

None of these language activities is devastating in itself; each has its own place. It is the time-consuming, overwhelming task of presenting so many activities which causes us to ask, "When do they write—stories, I mean, or descriptions, perhaps?" Kepler and Randall kept asking, "Where are the compositions?"

Recently, a sixth-grade teacher explained that her class didn't write because they really hadn't learned the basic skills yet. What happened to the idea that children learn to write by writing, with subskills as adjunct lessons directly derived from the errors?<sup>3</sup>

<sup>1</sup> Karen Kepler and Jill Weinrick Randall, "Individualization: The Subversion of Elementary Schooling," *The Elementary School Journal* 77 (May 1977): 358-63.

<sup>2</sup> Elliot Eisner in Distinguished Lecture, "Educational Connoisseurship and Educational Criticism: A New Evaluation Approach," ASCD Annual Conference, San Francisco, March 1978.

<sup>3</sup> James Moffet, *A Student-Centered Language Arts Curriculum, Grades K-13: A Handbook for Teachers* (Boston: Houghton Mifflin, 1973).

• *Reading.* Reading also suffers from masses of hierarchical skills and subskills. Words are sounded out, looked up, separated, prefixed, suffixed, rooted, and unrooted. In addition, there are sentences or small groups of sentences (carefully structured in classroom language) to be analyzed for main idea, details, fact, fiction, sequence, stress, time, place, character, causality. How welcome were the first kits that presented some subskills! Now, if the children can manage one through ten, A through Z, they may have time to read a book. A reading supervisor tells of a marvelous new idea whereby a whole school sets aside a time for reading books: this is to make certain that a time is allowed for this activity.

• *Mathematics.* Arithmetic would seem ideally suited to the highly analytical attack on subject matter. Certainly New Math was one of the first of the more "scientific" approaches to be dubbed "new." Arithmetic lends itself to hierarchical skill patterns: it is obvious that multiplication and subtraction are subskills of long division. But here, as in language arts, the field has suffered what could be called a term and skill explosion. The expert analysts decided that children should be able to do each process by several methods, use number sentences to acquire facts, use powers, bases, geometry, factor machines, and develop skill and knowledge about a profusion of other matters. After the dissection, there are so many skills, so many rules, so many bits of knowledge, that there is little time to teach anything very thoroughly, much less work on the holistic learning of applying mathematics to everyday problem solving. Also, not enough time remains to drill number facts.

Some justification for the fragmented arithmetic texts has been sought in the idea of a spiral curriculum. A small piece each year

will develop into an ever-expanding concept—that is, if the teacher has time for that piece, or if the child remembers it after a short exposure.

• *Social Studies.* After the myriad of skills devoted to the 3 R's, there is little time for much else. Eisner<sup>4</sup> says 60 to 70 percent of all elementary time is spent this way; however, the content fields have not escaped dissection. Attempts have been made to restructure social studies from history/geography to include all the other social sciences, the latter having been probed for each possible concept and generalization. No amount of research and development seems able to shake history and geography loose from the traditional fractures of dates and periods, countries and geographical regions. Generally, social studies is still far from the holistic world of interdisciplinary people-problems such as poverty and pollution or even the integrated social studies espoused by its creators.

• *Science.* Science suffers from a special kind of split, shared to some extent by the social studies: process versus product, or skill versus knowledge. Programs that emphasize the development of thinking or of science process skills often neglect content. Those with a content orientation often give only lip service to attendant thinking skills. Since neither "new science" nor "new social studies" has had much impact on schools, these are moot concerns. In fact, the content fields have recently given much attention to holistic, cross-cutting problems, but there may not be time even to experiment with these.

• *Arts and Physical Education.* Art, music, and physical education have been deleted from this discussion because their major difficulty is one of survival. But in these, too, one can find the analyst at work. Now a child is taught to throw a ball using several subskill

movements. Art and music are sometimes subdivided in much the same way.

Obviously, the curriculum fractures discussed here do not occur in all schools or in equal proportions. My purpose is to indicate that these problems exist, that they seem to be increasing, and that there appears to be no countervailing trend or pendulum swing but, instead, a number of forces destined to accelerate the dissection process.

### Forces Affecting Curriculum Dissection

• *Accountability and Testing.* At present, the most persistent among the pressures promoting and reinforcing curriculum splintering is that of accountability and its companion, testing. Regardless of rationale or worth, which have been discussed endlessly in the last years, there is insistent public pressure, supported by many professionals in education, to become more accountable: to state specific behavioral objectives and show proof in testable form that these have been accomplished. The modus operandi, derived from industry, is a systems approach whereby careful analysis reveals all the parts of the curriculum section under consideration. These fragments may then be defined in behavioral terms and consequently tested.

In industry, the sum of the parts makes a whole when a precise construction plan is followed. Accountability occurs when the product works or sells. In education, the parts are being defined, taught, and tested in situations where the sum of the parts does not make the whole—reading and writing—and where we either do not follow a precise construction plan or do not know what it is.

<sup>4</sup> Elliot Eisner, "The Impoverished Mind," *Educational Leadership* 35 (May 1978): 615-23.

Some wholes do not get taught (complex problem solving or valuing, for example) because the parts are uncertain and difficult to manage. As a result, the parts or fragments of curriculum are becoming educational ends (goals), not means as was intended.

• *Taxonomies.* It is interesting that accountability has produced such a hue and cry when the necessary groundwork has been so carefully laid by educators in the last 20 years. The taxonomies of Bloom<sup>5</sup> and Krathwohl<sup>6</sup> were major contributions.

Taxonomies are beautiful structures that enable us to extend some welcome control over the complex world. Those in the learning domains were long overdue. Taxonomies do not explain how people learn or provide a philosophic basis for what to teach any more than any other analytical product. Unfortunately, use of the taxonomies evolved into an obsession with behavioral objectives and the demand for specific, observable, testable behaviors. Thus began one phase of over-involvement with curricular fragments.

Part of Bloom's original purpose, providing greater attention to higher level cognitive skills, has been subverted: objectives referring to higher level cognitive skills, those more integrative, are difficult to write and test, and are consequently avoided. A great deal of curriculum analysis has resulted from the behavioral objective/taxonomy influence, some badly needed, much superfluous.

• *Mastery Learning.* Bloom's advocacy of mastery learning<sup>7</sup> is likely to set off another flurry of analyses in order to find the right piece of curriculum at the right level at the right time. The aim is admirable; the results might not be.

• *Programmed Learning.* Programmed learning is another trend that paved the way for accountability and curriculum dissection.

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The programmed lesson requires attention to the tiniest fragments. The difficulty of effectively constructing programmed material probably kept it from being a substantial element in education, but contributions were made to the analytic movement. Its demise may also have come from a significant discovery: working with numerous fragments for a long time period, with or without feedback, is deadly dull.

• *Individualization.* It is tragic that so many promising developments in education have inadvertently fed the curriculum dissectionists. Along with the taxonomies, one of these has been individualization. Briefly, the tremendous management problem, augmented by little faith in the ability of children to make reasonable choices and decisions, has produced masses of skill hierarchies, all neatly boxed, taped, dittoed, numbered, leveled, and cross-referenced with lots of record sheets. The continuous progress programs are a nightmare of fragments.

• *Departmentalized Teaching.* Although no specific figures are available, it is apparent that departmentalized teaching has come to the elementary school, even to the primary grades. Departmentalization is one of the most tenacious of all curriculum fractures, particularly serious because it promulgates and solidifies other fragmentation. Subject matter defined by bells, by shuffling children, defies problem-solving projects, extensive units, and all those integrative forces that could serve to blend the disciplines. Even such a synthesizing

experience as a field trip becomes a major disruption, and, thus, is discouraged.

As teachers become more specialized, their interest in the total curriculum wanes and there are fewer culminating activities such as dramatic productions or murals. Specialists are supposed to become more knowledgeable and proficient with regard to their subject. Perhaps they also become more devoted to minutiae, insisting that all the skills and subskills are covered.

• *Knowledge Explosion and Education as Science.* It may well be that the American love affair with science and technology is the most pervasive force of all, underlying many of the developments outlined here. Not that the knowledge explosion or any aspect of science and technology could not be used to great advantage; it has, and I am not suggesting that such investigation cease. It is simply a matter of how to use our new information effectively and to recognize its limitations. For example, the linguists have made remarkable discoveries about words, sentence formation, dialects, and other aspects of language; however, there is no evidence that dumping a lot of this new knowledge in the

<sup>5</sup> Benjamin S. Bloom, *Taxonomy of Educational Objectives* (New York: McKay, 1964).

<sup>6</sup> David R. Krathwohl and others, *Taxonomy of Educational Objectives* (New York: McKay, 1964).

<sup>7</sup> Benjamin S. Bloom, "Implications of the IEA Studies for Curriculum and Instruction," *School Review* 82 (May 1974): 413-36.

elementary curriculum will teach children to communicate better. It does not have to be inserted (quite literally in some cases) into texts, or stuffed into boxes and called "labs"—note the term used here for much new curriculum material, the allusion to science. That which enhances the understanding of adults with reference to the structure of disciplines is not necessarily conducive to the learning of children: it just clutters the curriculum.

It is understandable that educators, with their pitiful studies of no significant differences, cast a wistful eye at the world of science and technology. It would be nice to be efficient and precise, to have clear-cut answers. Eisner says it is our desire for "efficiency" that is contributing to fragmentation and imbalance in curriculum. Perhaps educators should heed what Schwab<sup>8</sup> says about the difficulties of scientific curriculum study. In their attempt at scientific study, educators may have become enmeshed in what Stephen Jay Gould, a Harvard scientist of renown, calls the "bad habits of Western scientific thought: atomism, reductionism, and determinism." He continues:

Western scientists have the idea that wholes should be understood by decomposition into "basic" units; that properties of microscopic units can generate and explain that behavior of macroscopic results. . . .<sup>9</sup>

With the determination to become more scientific, have we lost sight of holistic learnings, macroscopic results? What is more devastating? Have we let means (parts of curriculum) become ends in themselves because of our inability to see or manage the macrocosm?

### Effects

In the discussion of curriculum dissection, reference has been made to the loss of holistic learning, either because the whole is



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not the sum of the parts, for example, reading and writing, or because time consumed on the numerous fragments displaces that needed for various types of holistic activities. Eisner<sup>10</sup> refers to the loss of the arts with their symbolic systems and modes of consciousness vitally needed for understanding and communication.

Aspects of learning theory are also relevant to the effects of curriculum fragmentation. As of now, learning theory research presents no clear answers to the questions that arise from part-to-whole or whole-to-part types of learning.<sup>11</sup> Considering the unclear state of learning theory, it would not seem wise to "put all our eggs in one basket" with regard to any one approach to learning.

Brain research, related to learning, has also probed the matter of analytic learning as it is concerned with the overall functioning of the brain and the functions thought to belong to each hemisphere. A fractured curriculum may be developing one side of the brain at the expense of the other. Hart<sup>12</sup> says the typical "tight, step-by-step, ordered, sequential, linear approach" is not appropriate in terms of how the brain works.

In another vein is the matter of interest or motivation. It is certainly possible that the masses of overly-analyzed materials have dulled the enthusiasm of students

for various subjects. There seems to be something deadly about dealing with endless fragments all day. Attitude studies show that children enjoy reading books but do not like reading class. Perhaps this is why. Lundsteen says:

How much fragmentation of process can children profit from without harm to their awareness of related interacting parts? These methods may lead children to boredom and confusion about the use of reading. . . . We remember what makes sense to us. Fragments may not make much sense.<sup>13</sup>

### Conclusion

Dissected curriculum has become a major thrust in elementary schools. Children who are struggling to read, write, and think may be drowning in a sea of subdivided skills that are high on quantity and low on meaning.

Means (parts) have become ends in themselves. It is time for educators to assess more carefully the forces producing these conditions, reflect once more upon the ends of education, and decide whether the dissected curriculum is developing those skills and understandings of most worth. *EJ*

<sup>8</sup> Joseph J. Schwab, *The Practical: A Language for Curriculum* (Washington, D.C.: National Education Association, 1970).

<sup>9</sup> Stephen Jay Gould, "Caring Groups and Selfish Genes," *Natural History* (December 1977): 24.

<sup>10</sup> Eisner, Distinguished Lecture, 1978.

<sup>11</sup> John W. Cotton, John P. Gallagher, and Sandra P. Marshall, "The Identification and Decomposition of Hierarchical Tasks," *American Educational Research Journal* 14 (Summer 1977): 189-212. See: pp. 198-99, in particular.

<sup>12</sup> Leslie A. Hart, "The Conditions of Learning," *Phi Delta Kappan* 59 (February 1978): 394.

<sup>13</sup> Sara W. Lundsteen, "On Developmental Relations Between Language-Learning and Reading," *Elementary School Journal* 77 (January 1977): 192-203. With reference to F. Smith, *Understanding Reading*, (New York: Holt, Rinehart, and Winston, 1971).

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