

## Curricular Fragmentation

**John Goodlad:** “The division into subjects and periods encourages a segmented rather than an integrated view of knowledge. Consequently, what students are asked to relate to in schooling becomes increasingly artificial, cut off from the human experiences subject matter is supposed to reflect.” *A Place Called School*, McGraw-Hill, 1984, p.266

**Thomas Merton:** “The world itself is no problem, but we are a problem to ourselves because we are alienated from ourselves, and this alienation is due precisely to an inveterate habit of division by which we break reality into pieces and then wonder why, after we have manipulated the pieces until they fall apart, we find ourselves out of touch with life, with reality, with the world, and most of all with ourselves.” *Contemplation in a World of Action*, Paulist Press, 1992, p.153)

**TheodoreSizer:** “The fact is that there is virtually no federal-level talk about intellectual coherence for [a student]. The curricular suggestions and mandates leave the traditional “subjects” in virtually total isolation, and both the old and most of the new assessment systems blindly continue to tolerate a profound separation of subject matters, accepting them as conventionally defined ... The crucial, culminating task for [the student] of *making sense of it all*, at some rigorous standard, is left entirely to him alone.” *School Reform and the Feds: The Perspective from Sam. Planning and Changing*, v22 n3-4 p248-52 1991

**Neil Postman:** “There is no longer any principle that unifies the school curriculum and furnishes it with meaning.” *Phi Delta Kappan*, January 1983, p. 316

**David W. Orr:** [Formal schooling] “...imprints a disciplinary template onto impressionable minds and with it the belief that the world really is as disconnected as the divisions, disciplines, and subdivisions of the typical curriculum. Students come to believe that there is such a thing as politics separate from ecology or that economics has nothing to do with physics.” *Earth in Mind*, Island Press, 1994, p.23

**Leon Botstein:** “We must fight the inappropriate fragmentation of the curriculum by disciplines . . .” *The Chronicle of Higher Education*, December 1, 1982, P. 28

**Peter M. Senge:** “From a very early age, we are taught to break apart problems, to fragment the world. This apparently makes complex tasks and subjects more manageable, but we pay a hidden, enormous price. We can no longer see the consequences of our actions; we lose our intrinsic sense of connection to a larger whole.” *The Fifth Discipline*, Currency Doubleday 1990, p.3

**Harlan Cleveland:** “It is a well-known scandal that our whole educational system is geared more to categorizing and analyzing patches of knowledge than to threading them together.” *Change*, July/August 1985, p. 20

**Thomas Jefferson:** "...every science is auxiliary to every other." Extract from letter to Thomas Randolph, 27 August, 1786

**Kurt Vonnegut, Jr.** "The things other people have put into my head, at any rate, do not fit together nicely, are often useless and ugly, are out of proportion with one another, and out of proportion with life as it really is outside my head." Preface to *Breakfast of Champions*

**Buckminster Fuller:** "American education has evolved in such a way it will be the undoing of the society." (Quoted in *Officer Review*, March 1989, p.5)

**Rene Descartes:** "If, therefore, anyone wishes to search out the truth of things in serious earnest, he ought not to select one special science; for all the sciences are conjoined with each other and interdependent..." Rule 1, *Rules for the Direction of the Mind*, 1628.

**Alfred North Whitehead:** "[We must] eradicate the fatal disconnection of subjects which kills the vitality of the modern curriculum." Presidential Address to the Mathematical Association of England, 1916

**Felix Frankfurter:** "That our universities have grave shortcomings for the intellectual life of this nation is by now a commonplace. The chief source of their inadequacy is probably the curse of departmentalization." Introduction to Alfred North Whitehead's *The Aims of Education*, Mentor 1948

**John Muir:** "When we try to pick up anything by itself we find it is attached to everything in the universe."

**Ernest Boyer:** "All of our experience should have made it clear by now that faculty and students will not derive from a list of disjointed courses a coherent curriculum revealing the necessary interdependence of knowledge." (Paraphrased by Daniel Tanner in his review of Boyer's book *High School. Phi Delta Kappan*, March 1984, p. 10)

**Robert Stevens:** "We have lost sight of our responsibility for synthesizing knowledge." (*Liberal Education*, Vol. 71, No. 2, 1985, p.163)

**Jonathan Smith:** "To dump on students the task of finding coherence in their education is indefensible." Quoted in *Time*, April 20, 1981, p. 50

**John Kemeny:** "The problems now faced by our society transcend the bounds of the disciplines." Quoted by William Newell in *Liberal Education*, Association of American Colleges, 1983, Vol. 69, No. 3

**Arnold Thackeray:** "The world of our experience does not come to us in the pieces we have been carving out." Quoted in *The Chronicle of Higher Education*, October 1987, p. A 14

**David Cohen:** “Testing companies, textbook publishers, teacher specialists, associations representing specific content areas, and other agencies all speak in different and often inconsistent voices...The U.S. does not have a coherent system for deciding on and articulating curriculum and instruction.” (*Phi Delta Kappan*, March 1990, p. 522)

**Frank Betts:** “Learning begins as an integrated experience as a newborn child experiences the world in its totality.” *ASCD 1993*, 13.7

**Greg Stefanich and Charles Dedrick:** “Learning is best when all of a student’s educational experiences merge to form an integrated whole, thereby transforming information into a larger network of personal knowledge.” *Science and Mathematics*, 1985, Vol.58, p.275

**James Coomer:** “Our educational systems . . . are now primarily designed to teach people specialized knowledge — to enable students to divide and dissect knowledge. At the heart of this pattern of teaching is . . . a view of the world that is quite simply false.” (*Texas Tech Journal of Education*, 1982, p.166)

**Thích Nhất Hạnh:** “People normally cut reality into compartments, and so are unable to see the interdependence of all phenomena. To see one in all and all in one is to break through the great barrier which narrows one’s perception of reality.” *The Miracle of Mindfulness*, Beacon Press, 1975, 6

**David Bohm:** “I think the difficulty is this fragmentation. All thought is broken up into bits. Like this nation, this country, this industry, this profession and so on... And they can’t meet. That comes about because thought has developed traditionally in a way such that it claims not to be effecting anything but just telling you the way things are. Therefore, people cannot see that they are creating a problem and then apparently trying to solve it... Wholeness is a kind of attitude or approach to the whole of life. If we can have a coherent approach to reality then reality will respond coherently to us.” *Wholeness: A Coherent Approach to Reality* (Presentation in Amsterdam, in 1990, documentary *Art Meets Science & Spirituality in a Changing Economy*).

**Leonardo Da Vinci:** “Learn how to see—realize that everything connects to everything else.”

**Paul DeHart Hurd:** “There are neither philosophical nor psychological grounds for compartmentalizing knowledge into islands of information as school subjects are currently conceived.” *Middle School Journal*, Vol. 20, No.5, p.22

**James Moffett:** “[It is essential to integrate] learning across subjects, media, and kinds of discourse so that individuals may continuously synthesize their own thought structures.” *Phi Delta Kappan*, September 1985, p. 55.

**Tsunesaburo Makiguchi:** “Through their studies, children must be brought to that point of awareness wherein . . . [they] get some sort of total picture of it all . . . In

advancing level by level through the curriculum, students should be internalizing an overall idea structure of means and ends.” *Education for Creative Living*, 1989, p. 196

**Stephanie Pace Marshall:** “The natural world is now understood as an interdependent, relational, and living web of connections.” (*The Power to Transform*, Jossey-Bass, 2006, p. xii)

**Richard A. Gibboney,** “The atomized chop-chop of the high school curriculum has filtered up to higher education.” *The Stone Trumpet*, State University of New York Press, 1994. p. 9

**Roger Schank:** “Academics designed the school system. To them, it seemed natural that subjects that they were experts on should be taught in high school. Such a simple thought has created a major problem. Education ought not to be subject-based but, in a sense, we can’t help but think of it that way because we all went to schools that were subject-based.” (*Teaching Minds, How cognitive science can save our schools*). Teachers College Press, Columbia University, 2011

**Arthur Koestler:** “...all decisive events in the history of scientific thought can be described in terms of mental cross-fertilization between different disciplines.” *The Act of Creation*, Penguin, London 1964

**Albert Einstein:** “I like to experience the universe as one harmonious whole.” *Einstein and the Poet: In Search of the Cosmic Man* (1983)

**Association of American Colleges:** “We do not believe that the road to a coherent education can be constructed from a set of required subjects or academic disciplines.” (“Integrity In the College Curriculum, A Report to the Academic Community,” Project On Redefining the Meaning and Purpose of Baccalaureate Degrees, 1985)

**Carnegie Foundation for the Advancement of Teaching:** “The disciplines have fragmented themselves into smaller and smaller pieces, and undergraduates find it difficult to see patterns in their courses and relate what they learn to life.” Prologue to “College: The Undergraduate Experience in America,” November 1986

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