

## BIBLIOGRAPHY

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References are listed under the chapters in which they appear. For convenience, the standards documents developed by various disciplines are grouped together at the end of the Bibliography.

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### SCIENCE LITERACY, CURRICULUM REFORM, AND THIS BOOK

Walker, D. (1990). *Fundamentals of curriculum*. San Diego, CA: Harcourt Brace Jovanovich.

### PROLOGUE: DESIGN IN GENERAL

A survey of manufacturing technology. (1994). *The Economist*, 330(7853), 3-18.

Beam, W. R. (1990). *Systems engineering: Architecture and design*. New York: McGraw Hill.

Bucciarelli, L. (1994). *Designing engineers*. Boston: MIT Press.

Campbell, R. (1988, March). Learning from the Hancock. *Architecture*, 77(3).

Cowan, H. J. (1977). *The master builders: A history of structural and environmental design from ancient Egypt to the nineteenth century*. New York: John Wiley & Sons.

Cross, N. (1982). Designerly ways of knowing. *Design Studies*, 3(4), 221-227.

David, J. (1991). Restructuring and technology: Partners in change. *Phi Delta Kappan*, 73(1), 37-40.

French, M. J. (1988). *Invention and evolution: Design in nature and engineering*. Cambridge, England: Cambridge University Press.

Glegg, G. L. (1981). *The development of design*. Cambridge, England: Cambridge University Press.

Gregory, S. A. (Ed.). (1966). *The design method*. New York: Plenum.

Hopkins, H. J. (1970). *A span of bridges: An illustrated history*. New York: Praeger.

Hutchinson, J., & Karsnitz, J. (1994). *Design and problem solving in technology*. Albany, NY: Delmar Publishers.

Jones, J. C. (1992). *Design methods*. (2nd ed.). New York: Van Nostrand Reinhold.

Kuter, L. S. (1973). *The great gamble: The Boeing 747*. Tuscaloosa, Alabama: University of Alabama Press. **A saga detailing Boeing and Pan Am's collaboration in producing the 747.**

Lawson, B. (1990). *How designers think* (3rd ed.). London: The Architectural Press.

Leonhardt, F. (1984). *Bridges: Aesthetics and designs*. Cambridge, MA: MIT Press.

Maher, M. L., Balachandran, M. B., & Zhang, D. M. (1995). *Case-based reasoning in design*. Mahwah, NJ: Lawrence Erlbaum Associates.

McCullough, D. (1972). *The great bridge*. New York: Simon and Schuster.

McCullough, D. (1978). *The path between the seas: The creation of the Panama Canal, 1870-1914*. New York: Simon & Schuster.

Newhouse, J. (1982). A sporty game; III – Big, bigger, jumbo. *The New Yorker*, 58(19), 45-83. **Describes attempts to design more profitable aircraft, culminating in the mid-sixties battle by airlines to preempt each other in strategic aircraft/engine purchases.**

Petroski, H. (1994). *Design paradigms: Case histories of error and judgment in engineering*. New York: Cambridge University Press.

Petroski, H. (1982). *To engineer is human: The role of failure in successful design*. New York: St. Martin's Press.

Public Agenda. (1994). *First things first: What Americans expect from the public schools—Summary*. New York: Author.

Sobel, D. (1995). *Longitude: The true story of a lone genius who solved the greatest scientific problem of his time*. New York: Walker & Co.

Stites, J. (1994, Winter). W. Brian Arthur. *The Bulletin of the Santa Fe Institute*, 9(2), 5-8. **The evolution of economics, according to Dr. Arthur.**

Thompson, B. (1997). *Creative engineering design*. Okemos, MI: Okemos Press.

#### Chapter 1: CURRICULUM DESIGN

Anderson, J. (1994). [Alternative approaches to organizing the school day and year](#). *The School Administrator*, 51(3), 8-11, 15.

Barzansky, B., & Gevitz, N. (Eds.). (1992). *Beyond Flexner: Medical education in the twentieth century*. Westport, CT: Greenwood Press.

Benathy, B. H. (1991). *Systems design of education: A journey to create the future*. Englewood Cliffs, NJ: Educational Technology Publications.

Breinin, C. (1994, Dec. 14). History learned is more important than history taught. [Letter to the editor]. *Education Week*, 14(15), 45.

Eisner, E. (1979). *The educational imagination*. New York: Macmillan.

Goodson, I. F. (1997). *The changing curriculum: Studies in social construction*. New York: Peter Lang.

Hutchinson, J., & Karsnitz, J. (1994). *Design and problem solving in technology*. Albany, NY: Delmar Publishers.

Kliebard, H. M. (1977). The Tyler rationale. In A. A. Bellack & H. M. Kliebard (Eds.), *Curriculum and evaluation* (pp. 57-67). Berkeley, CA: McCutchan Publishing. [Kliebard explains and criticizes Tyler's 1950 classic about designing curriculum.](#)

Kliebard, H. M. (1987). *The struggles for the American curriculum*. Boston: Routledge.

Kline, D. (1998, Spring/Summer). [An overview of block scheduling](#). *Spectrum*, 24(1), 22.

Oxley, D. (1994, March). [Organizing schools into small units: Alternatives to homogeneous grouping](#). *Phi Delta Kappan*, 75(7), 521-526.

Powell, A. G., Farrar, E., & Cohen, D. K. (1985). *The shopping mall high school: Winners and losers in the educational marketplace*. Boston: Houghton Mifflin.

Roth, K. (1994, Spring). [Second thoughts about interdisciplinary studies](#). *American Educator*, 18(1).

Stephens, J. M. (1967). *The process of schooling: A psychological examination*. New York: Holt, Rinehart and Winston.

Thorndike, E. (1986). A neglected aspect of the American high school. *Educational Review*, 33(1907).

Tyler, R. W. (1950). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Tyler, R. W. (1977). The organization of learning experiences. In A. A. Bellack & H. M. Kliebard (Eds.), *Curriculum and evaluation* (pp. 45-55). Berkeley, CA: McCutchan Publishing.

Tyson, H. (1997, July). *Overcoming structural barriers to good textbooks*. Paper presented at the meeting of the National Education Goals Panel, Las Vegas, NV.

Zajonc, A. (1992). Science within an ecology of mind: Alternatives in educational reform. *Holistic Education Review*, 5(3), 5-9. [Several national studies find Americans' science literacy to be deficient. According to the author, three typical responses occur: national standards, high-tech educational tools, or "education as for-profit business."](#)

#### Chapter 2: CURRICULUM SPECIFICATIONS

Anderson, J. (1995). *Who's in charge? State differences in public school teachers' perceptions of their control over determining curriculum, texts, and course content*. (Research Report AR 95-7007). Washington, DC: OERI, U.S. Department of Education.

Axtell, R., & Epstein, J. (1994, Winter). [Agent-based modeling: Understanding our creations](#). *The Bulletin of the Santa Fe Institute*, 9(2), 28-29. This article states that key social structures, such as traffic patterns or even epidemics, emerge from exchange between separate agents.

Benjamin, H. (1939). *The saber-tooth curriculum by J. Abner Peddiwell*. Ph.D. New York: McGraw-Hill. [Forward-thinking cavemen create curriculum based on real-world needs. Later, when those needs change, radicals insist curriculum adapt to meet current real-world needs.](#)

Bracey, G. (1995). Variance happens—get over it! *Technos*, 4(3), 22-29. Bracey argues that some current education strategies, based on standards and outcomes that promote the expectation that all children can learn, are bound to fail.

Brett, M. (1996). Teaching extended class periods. *Social Education*, 60(2), 77-79.

[Building new models for change in organizations](#). (1994, Winter). *The Bulletin of the Santa Fe Institute*, 9(2).

Burke, A. (1987). *Making a big school smaller: The school-within-a-school arrangement for middle level schools*. Unpublished manuscript.

Bybee, R. W., & McInerney, J. (Eds.). (1995). *Redesigning the science curriculum*. Colorado Springs, CO: BSCS.

Cahen, L. S., & Filby, N. N. (1979). The class size/achievement

- issue: New evidence and a research plan. *Phi Delta Kappan*, 60(7), 492-495, 538.
- Checkley, K. (1995). Multiyear education: Reaping the benefits of "looping." *Education Update*, 37(8), 1, 3, 6. In "looping," a teacher will remain with a class for a minimum of two years, thus building stronger interpersonal relationships with the attendant benefits and some risks.
- Glatthorn, A. A. (1994). *Developing a quality curriculum*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Goertz, M., Floden, R., & O'Day, J. (1996). *Systemic reform: Studies of education reform*. Washington, DC: OERI, U.S. Department of Education.
- Huebner, D. (1975). The tasks of the curricular theorist. In W. Pinar. (Ed.), *Curriculum theorizing: The reconceptualists* (pp. 250-270). Berkeley, CA: McCutchan Publishing.
- Labaree, D. F. (1999, May 19). The chronic failure of curriculum reform. *Education Week on the Web*. Available: www.edweek.org/ew/vol-18/36/abar.h18.
- Managing change in education*. (1998). Arlington, VA: Educational Research Service.
- Macdonald, J. B. (1975). Curriculum theory. In W. Pinar. (Ed.), *Curriculum theorizing: The reconceptualists* (pp. 5-13). Berkeley, CA: McCutchan Publishing.
- MacFarquhar, N. (1995, July 22). Trenton schools begin an experiment with year-round classes. *The New York Times*, pp. 21, 25.
- Mitchell, C. T. (1993). *Refining designing: From form to experience*. New York: Van Nostrand Reinhold.
- New schools from scratch. (1993). *High Strides*, 5(4), 7.
- Ornstein, A. C. (1982, February). Curriculum contrasts: A historical overview. *Phi Delta Kappan*, 63(6), 404-408.
- Perkins, D. N. (1987). Knowledge as design: Teaching thinking through content. In J. B. Baron & R. J. Sternberg, (Eds.), *Teaching thinking skills: Theory and practice* (pp. 63-85). New York: W. H. Freeman.
- Pogrow, S. (1996). Reforming the wannabe reformers: Why education reforms almost always end up making things worse. *Phi Delta Kappan*, 77(10), 656-663.
- Schmidt, W., McKnight, C., & Raizen, S. (1997). *A splintered vision: An investigation of U.S. science and mathematics education*. Norwell, MA: Kluwer Academic Publishers.
- Schubert, W. (1993). Curriculum reform. In Cawelti, G. (Ed.), *Challenges and achievements of American education: The 1993 ASCD yearbook* (pp. 80-115). Alexandria, VA: Association for Supervision and Curriculum Development.
- Schwab, J. J. (1983). The practical 4: Something for curriculum professors to do. *Curriculum Inquiry*, 13(3).
- Sheingold, K. (1991). Restructuring for learning with technology: The potential for synergy. *Phi Delta Kappan*, 73(1), 17-27.
- Stenvall, M. (1996). Year-round science: Shorter year-end breaks plus longer classes equals success. *The Science Teacher*, 63(6), 32-34.
- Walker, D. F., & Schaffarzick, J. (1974, Winter). Comparing curricula. *Review of Educational Research*, 44(1).
- Wilson, K., Daviss, B. (1994). *Redesigning education*. New York: Henry Holt.
- Chapter 3: DESIGN BY ASSEMBLY
- Barnes, R., Straton, J., & Ukena, M. (1996). A lesson in block scheduling. *The Science Teacher*, 63(6), 35.
- Canaday, R. L., & Rettig, M. D. (Eds.). (1996). *Teaching in the block: Strategies for engaging active learners*. Larchmont, NY: Eye on Education.
- Canaday, R. L., & Rettig, M. D. (1993). Unlocking the lockstep high school schedule. *Phi Delta Kappan*, 75(4), 310-314.
- Christensen, C. R. (1987). *Teaching and the case method: Text, cases, and readings*. Boston: Harvard Business School.
- Cooper, S. L. (1996). Blocking in success: Plan ahead for big dividends from a new schedule. *The Science Teacher*, 63(6), 28-31.
- Day, M. M., Ivanov, C., & Binkley, S. (1996). Tackling block scheduling: How to make the most of longer classes. *The Science Teacher*, 63(6), 25-27.
- Northwest Regional Educational Lab. (1990). *Literature search on the question: What are the advantages and disadvantages of various scheduling options for small secondary schools (high school and middle schools)?* Eugene, OR: Author.
- Sizer, T. (1992). *Horace's school: Redesigning the American high school*. Boston: Houghton Mifflin.
- Sommerfeld, M. (1996). More and more schools putting block scheduling to test of time. *Education Week*, 15(35), 1, 14, 15, 17.
- Wiggins, G. (1989, November). The futility of trying to teach everything of importance. *Educational Leadership*, 47(3), 44-59.

## Chapter 4: CURRICULUM BLOCKS

- Adams, D. C., & Salvaterra, M. E. (1997). *Block scheduling: Pathways to success*. Lancaster, PA: Technomic Publishing.
- Anderson, C. W., Roth, K. J., Hollon, R., & Blakeslee, T. (1987). *The power cell: Teacher's guide to respiration* (Occasional Paper No. 113). East Lansing, MI: Michigan State University, Institute for Research on Teaching.
- Brearley, D., Ezell, D., Matthews, S., McGirr, B., Rossman, P., Sharp, R., Valenzuela, S., Vincent, F., & Welty, K. (1992). *Thoughts on design and writing design blocks*. Summer Institute conducted by Project 2061, Ithaca, NY.
- Collins, A. (1991). The role of computer technology in restructuring schools. *Phi Delta Kappan*, 73(1), 28-36.
- Doll, R. (1996). *Curriculum improvement*. (9th ed.). Needham Heights, MA: Allyn & Bacon.
- Glegg, G. L. (1973). *The science of design*. Cambridge, England: Cambridge University Press.
- Irmsher, K. (1996). Block scheduling in high schools. *Oregon School Study Council*, 39(6).
- Jackson, P. W. (Ed.). (1992). *Handbook of research in curriculum: A project of the American Educational Research Association*. New York: Macmillan.
- Jones, J. C. (1980). *Design methods: Seeds of human futures*. New York: Wiley.
- Lindsay, J. (May 20, 1999). *The case against block scheduling*. Available: [www.jefflindsay.com/Block.shtml](http://www.jefflindsay.com/Block.shtml)
- Luyten, H. (1994). *School size effects on achievement in secondary education: Evidence from the Netherlands, Sweden and the USA*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Multiyear assignment of teachers to students*. (1998). Arlington, VA: Educational Research Service.
- Northeast and Islands' Regional Educational Laboratory at Brown University. (1997, September). *Block scheduling: Innovations with time*. Providence, RI: Author.
- Orpwood, G., & Garden, R. (1998). *Assessing mathematics and science literacy*. Vancouver, Canada: Pacific Educational Press.
- Queen, J. A., & Isenhour, K. G. (1998). *The 4x4 block schedule*. Larchmont, NY: Eye on Education.
- Roberts, D., & Östman, L. (Eds.). (1996). *The many meanings of science curriculum*. New York: Teachers College Press.
- Rossi, P. H., & Freeman, H. E. (1993). *Evaluation: A systematic approach*. Newbury Park, CA: Sage Publications.
- Schroth, G. (1997). *Fundamentals of school scheduling*. Lancaster, PA: Technomic Publishing.
- Selby, C. C. (1993). Technology: From myths to realities. *Phi Delta Kappan*, 74(9), 684-689.
- Sykes, G. (1996). Reform of and as professional development. *Phi Delta Kappan* 77(7), 465-467.
- Usiskin, Z. (1994, Winter). Individual differences in the teaching and learning of mathematics. *UCSMP Newsletter*, 14, 7-14.
- Weiner, J. (1994) *The beak of the finch*. New York: Knopf.
- Willis, S. (1993). Are longer classes better? *ASCD Update*, 35(3), 1-3.

## Chapter 5: HOW IT COULD BE: THREE STORIES

- American Association for the Advancement of Science. (1998). *Blueprints for reform*. New York: Oxford University Press.
- Claxton, G. (1991). *Educating the inquiring mind: The challenge for school science*. Hertfordshire, England: Harvester Wheatsheaf.
- Cuban, L. (1990). Reforming again and again and again. *Educational Researcher*, 19(1), 2-13.
- Elmore, R. (1996, Spring). Getting to scale with good educational practice. *Harvard Educational Review*, 1(66), 1-26.
- Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London: Falmer Press.
- Fullan, M., & Pomfret, A. (1977, Winter). Research on curriculum and instruction implementation. *Review of Educational Research*, 47(1).
- Gardner, H. (1992). The two rhetorics of school reform: Complex theories vs. the quick fix. *Chronicle of Higher Education*, 38(35).
- Gee, W. D. (1997). The Copernican plan and year-round education. *Phi Delta Kappan*, 78(10), 793-796.
- Gray, D. (1988, Summer). Socratic seminars: Basic education and reformation. *Basic Education: Issues, Answers, and Facts*, 3(14).
- Hall, G. E. (1979, Summer). The concerns-based approach to facilitating change. *Educational Horizons*.
- Herriott, R. E., & Gross, N. (Eds.). (1979). *The dynamics of planned educational change*. Berkeley, CA: McCutchan.
- Hord, S., Stiegelbauer, S., & Hall, G. (1984, September-December). Principals don't do it alone: Researchers discover second change facilitator active in school improvement efforts. *R&DCTE Review*, II (3).
- Lazerson, M. (1986). Review of "A Study of High Schools." *Harvard Educational Review*, 56(1).



- Leithwood, K. A. (Ed.). (1982). *Studies in curriculum decision making*. Toronto, Ontario: The Ontario Institute for Studies in Education.
- Miles, M. B. (1986, May). *Research findings on the stages of school improvement*. Unpublished manuscript.
- Newmann, F., & Wehlage, G. (1995). *Successful school restructuring*. Madison, WI: Center on Organization and Restructuring of Schools.
- Tyack, D., & Cuban, L. (1997). *Tinkering toward utopia*. Cambridge, MA: Harvard University Press.
- Introduction to Part III: IMPROVING TODAY'S CURRICULUM
- Petroski, H. & E. Kastenmeier. (1995). *Engineers of dreams*. New York: Knopf.
- Chapter 6: BUILDING PROFESSIONAL CAPABILITY
- Ability grouping: Effects and alternatives*. (1998). Arlington, VA: Educational Research Service.
- American Association for the Advancement of Science. (1997). *Resources for science literacy: Professional development*. New York: Oxford University Press.
- American Association for the Advancement of Science. (in press). *Atlas of science literacy*. New York: Oxford University Press.
- American Association for the Advancement of Science. (in press). *Resources for science literacy: Curriculum materials evaluation*. New York: Oxford University Press.
- Anderson, C. (1991). Policy implications of research on science teaching and teachers' knowledge. In M. M. Kennedy (Ed.), *Teaching academic subjects to diverse learners* (pp. 5-30). New York: Teachers College Press.
- Anderson, R. H., & Nelson, B. (1993). *Nongradedness: Helping it to happen*. Lancaster, PA: Technomic Publishing.
- Arzi, H. J. (1988). From short- to long-term: Studying science education longitudinally. *Studies in Science Education*, 15, 17-53.
- Bybee, R. (1993). *Reforming science education: Social perspectives and personal reflections*. New York: Teachers College Press.
- Fullan, M. (1985). Change processes and strategies at the local level. *The Elementary School Journal*, 85(3).
- Fullan, M., Galluzzo, G., Morris, P., & Watson, N. (1998). *The rise and stall of teacher education reform*. Washington, DC: American Association of Colleges for Teacher Education.
- Gabel, D. L. (1994). *Handbook of research on science teaching and learning*. New York: Macmillan.
- Goodlad, J. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.
- Grouws, D. T. (1992). *Handbook of research on mathematics teaching and learning*. New York: Macmillan.
- Jackson, P. W. (Ed). (1992). *Handbook of research on curriculum: A project of the American Educational Research Association*. New York: Macmillan.
- Jensen, R. J. (1993). *Research ideas for the classroom: Early childhood mathematics*. New York: Macmillan.
- Johnson, B. (1996). *The performance assessment handbook: Portfolios and Socratic seminars*. (Vol. 1). Larchmont, NY: Eye on Education.
- Millar, R., & Driver, R. (1987). Beyond processes. *Studies in Science Education*, 14, 33-62. Given that education is cyclical in its phases, the British authors examine the current and past emphasis on the methods of science as justification for its inclusion in the curriculum.
- National Education Commission on Time and Learning. (1994). *Prisoners of time*. Washington, DC: U.S. Government Printing Office. This serves as a comprehensive review of how time is used in the public school system and its effect on student learning.
- National Center for Education Statistics. (1993). *Time in the classroom*. (Research report NCES 94-398). Washington, DC: OERI, U.S. Department of Education.
- National Staff Development Council. (1995). *Standards for staff development: Elementary school edition*. Oxford, OH: Author.
- National Staff Development Council. (1995). *Standards for staff development: High school edition*. Oxford, OH: Author.
- Newman, D. (1992). Technology as support for school structure and school restructuring. *Phi Delta Kappan*, 74(4), 308-315.
- Nosich, G. (1991). The goals of science education. *Inquiry*, 9(1), 1, 4-6.
- Owens, D. T. (1993). *Research ideas for the classroom: Middle grades mathematics*. New York: Macmillan.
- Pate-Bain, H., Achilles, C. M., Boyd-Zaharias, J., & McKenna, B. (1992). Class size does make a difference. *Phi Delta Kappan*, 74(3), 253-256.

- Patton, M. Q. (1997). *Utilization-focused evaluation*. (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Pumphrey, S. (1991). History of science in the national science curriculum: A critical review of resources and their aims. *The British Journal for the History of Science*, 24.
- Roth, K. (1987). *Learning to be comfortable in the neighborhood of science: An analysis of three approaches to elementary science teaching*. Unpublished manuscript.
- Shanker, A. (1995, February 5). *Where we stand: Disciplinary learning*. Available: [www.aft.org/stand/previous/1995/020595.html](http://www.aft.org/stand/previous/1995/020595.html)
- Slavin, R. E., Madden, N. A., Dolan, L. J., Wasik, B. A., Ross, S. M., & Smith, L. J. (1994, April). "Whenever and wherever we choose"—the replication of "Success for All." *Phi Delta Kappan*, 75(8), 639-647.
- Sneider, C. (1972, September). A different "discovery" approach. *The Physics Teacher*, 10(6), 327-329.
- Stavy, R. (1991, October). Children's ideas about matter. *School Science and Mathematics*, 91(6), 240-244.
- Wilson, P. S. (1993). *Research ideas for the classroom: High school mathematics*. New York: Macmillan.
- Chapter 7: UNBURDENING THE CURRICULUM
- Bracey, G. W. (1992, June 12). Cut out algebra! *The Washington Post*, p. C5.
- Carr, J. F., & Harris, D. E. (1993). *Getting it together: A process workbook for K-12 curriculum development, implementation, and assessment*. Needham Heights, MA: Allyn & Bacon.
- Groves, F. H. (1995). Science vocabulary load of selected secondary science textbooks. *School Science and Mathematics*, 95(5), 231-235.
- Schmidt, W., McKnight, C., & Raizen, S. (1997). *A splintered vision: An investigation of U.S. science and mathematics education*. Norwell, MA: Kluwer Academic Publishers.
- Schools Brief: Tests of the truth. (1992). *The Economist*, 325(7785), 106-107. This features a brief look at the character and history of the scientific experiment as it is affected by its human proponents.
- Chapter 8: INCREASING CURRICULUM COHERENCE
- Berlin, D. (1991). *A bibliography of integrated science and mathematics teaching and learning literature*. Bowling Green, OH: School Science and Mathematics Association.
- Berlin, D. (Ed.). (1997). *School science and mathematics integrated lessons*. Bloomsburg, PA: School Science and Mathematics Association.
- Bybee, R. W., Powell, J. C., Ellis, J. D., Giese, J. R., Parisi, L., & Singleton, L. (1991). Integrating the history and nature of science and technology in science and social studies curriculum. *Science Education*, 75(1), 143-155.
- Davison, D. M., Miller, K. W., & Metheny, D. L. (1995). What does the integration of science and mathematics really mean? *School Science and Mathematics*, 95(5), 226-230.
- Dede, C. (1989). The evolution of information technology: Implications for curriculum. *Educational Leadership*, 7(1), 23-26.
- Edling, W. (1992). *Creating a tech prep curriculum*. Waco, TX: Center for Occupational Research and Development.
- Ellis, A. K., & Stuenkel, C. J. (1998). *The interdisciplinary curriculum*. Larchmont, NY: Eye on Education.
- Evans, D. (1995). Education for the workplace: Another form of elitism. *Education Week*, 15(10), 35.
- Fogarty, R. (Ed.). (1993). *Integrating the curricula: A collection*. Palatine, IL: IRI/Skylight Publishing.
- National Council on Economic Education. (1997). *Voluntary national content standards*. New York: Author.
- Scarborough, J. D. (1993). Integrated models for teachers. *The Technology Teacher*, 52(5), 26-30.
- Schmidt, W., Raizen, S., McKnight, C., Britton, E., Nicol, C., & Robitaille, D. (Eds.). (1993). *Curriculum frameworks for mathematics and science*. Vancouver, Canada: Pacific Educational Press.
- Snider, R. (1992). The machine in the classroom. *Phi Delta Kappan*, 74(4), 316-323. This article chronicles the chaotic use of technology in the classroom and argues that humans direct the machinery, not the other way around.
- Underhill, R. G. (1995). Integrating math and science: We need dialogue! *School Science and Mathematics*, 95(5), 225.
- Walker, D., & Soltis, J. (1997). *Curriculum and aims*. (3rd ed.) New York: Teachers College Press.
- Willis, S. (1995). Making integrated curriculum a reality. *Education Update*, 37(4).

Work-based learning models for school-to-work programs. (1995). *Education Daily*, 28(198), 6.

Epilogue: ANOTHER LOOK AT DESIGNS

Zucker, A. A., Shields, P. M., Adelman, N., & Powell, J. (1995). *Evaluation of the National Science Foundation's Statewide Systemic Initiatives (SSI) program: Second-year report, cross-cutting themes* (NSF Publication No. 96-48). Washington, DC: National Science Foundation.

Current national standards documents

American Association for the Advancement of Science. (1989).

*Science for all Americans*. New York: Oxford University Press.

American Association for the Advancement of Science. (1993).

*Benchmarks for science literacy*. New York: Oxford University Press.

Center for Civic Education. (1994). *National standards for civics and government*. Calabasas, CA: Author.

Consortium of National Arts Education Associations. (1994).

*National standards for arts education: What every young American should know and be able to do in the arts*. Reston, VA: Author.

Council for Basic Education. (1998). *Standards for excellence in education: A guide for parents, teachers, and principals for evaluating and implementing standards for education*. Washington, DC: Association for Supervision and Curriculum Development.

Geography Education Standards Project. (1994). *Geography for life: National geography standards*. Washington, DC: National Geographic Research and Exploration.

Geography Education Standards Project. (1994). *Geography for life: National geography standards*. Washington, DC: National Geographic Research and Exploration.

International Technology Education Association. (in press). *Standards for technology: Content for the study of technology*. Reston, VA: Author.

Joint Committee on National Health Education Standards. (1995).

*National health education standards: Achieving health literacy*. Reston, VA: Association for the Advancement of Health Education.

Mohsen, B. (Ed.). (1998). *Concepts of physical education: What every student should know*. Reston, VA: National Association for Sport and Physical Education/AAHPERD.

National Center for History in the Schools. (1994). *National standards for history for grades K-4: Expanding children's world in time and space*. Los Angeles, CA: Author.

National Center for History in the Schools. (1994). *National standards for United States history: Exploring the American experience*. Los Angeles, CA: Author.

National Center for History in the Schools. (1994). *National standards for world history: Exploring paths to the present*. Los Angeles, CA: Author.

National Council for the Social Studies. (1994). *Expectations of excellence: Curriculum standards for social studies*. Washington, DC: Author.

National Council for Teachers of Mathematics. (1998). *Principles and standards for school mathematics—discussion draft*. Reston, VA: Author.

National Council of Teachers of English and the International Reading Association. (1996). *Standards for the English language arts*. Urbana, IL: National Council of Teachers of English.

National Research Council. (1996). *National science education standards*. Washington, DC: National Academy Press.

National Standards in Foreign Language Education Project. (1996). *Standards for foreign language learning: Preparing for the 21st century*. Lawrence, KS: Allen Press, Inc.