

Contents

Foreword	vi
<i>Heidi Hayes Jacobs</i>	
Acknowledgments	vii
About the Authors	ix
Introduction	1
What Is This Book All About?	1
Why Bother?	2
The Theorists: Research on the Brain and Learning	3
The Practitioners: Abandonment of an Overloaded Curriculum and Adherence to Standards of Learning	5
The Parents: What Will Our Children Need 25 Years From Now?	7
The Students: Education Is a Vaccination	7
How Can the Curriculum Be Integrated?	9
10 Models of Integrating the Curricula	9
Agree/Disagree Introductory Activity	9
Four-Fold Concept Development Activity	15
Examples of the Four-Fold Concept Development Activity	17
How Do Teachers Use This Book?	20
Model 1. Cellular	22
What Is the Cellular Model?	22
What Does It Look Like?	23
What Does It Sound Like?	23
What Are the Advantages?	23
What Are the Disadvantages?	24
When Is This Cellular Model Useful?	24
How to Integrate the Curricula Working With Model 1: Cellular	25
Model 2. Connected	31
What Is the Connected Model?	31
What Does It Look Like?	32
What Does It Sound Like?	32
What Are the Advantages?	32
What Are the Disadvantages?	32
When Is This Connected Model Useful?	33
How to Integrate the Curricula Working With Model 2: Connected	37
Model 3. Nested	39
What Is the Nested Model?	39
What Does It Look Like?	40
What Does It Sound Like?	40
What Are the Advantages?	41

What Are the Disadvantages?	41
When Is This Nested Model Useful?	41
How to Integrate the Curricula Working With Model 3: Nested	42
Model 4. Sequenced	48
What Is the Sequenced Model?	48
What Does It Look Like?	49
What Does It Sound Like?	49
What Are the Advantages?	49
What Are the Disadvantages?	50
When Is This Sequenced Model Useful?	50
How to Integrate the Curricula Working With Model 4: Sequenced	51
Model 5. Shared	57
What Is the Shared Model?	57
What Does It Look Like?	57
What Does It Sound Like?	58
What Are the Advantages?	58
What Are the Disadvantages?	59
When Is This Shared Model Useful?	59
How to Integrate the Curricula Working With Model 5: Shared	63
Model 6. Webbed	65
What Is the Webbed Model?	65
What Does It Look Like?	66
What Does It Sound Like?	66
What Are the Advantages?	67
What Are the Disadvantages?	67
When Is This Webbed Model Useful?	67
How to Integrate the Curricula Working With Model 6: Webbed	77
Model 7. Threaded	79
What Is the Threaded Model?	79
What Does It Look Like?	80
What Does It Sound Like?	80
What Are the Advantages?	82
What Are the Disadvantages?	82
When Is This Threaded Model Useful?	83
How to Integrate the Curricula Working With Model 7: Threaded	90
Model 8. Integrated	92
What Is the Integrated Model?	92
What Does It Look Like?	93
What Does It Sound Like?	93
What Are the Advantages?	93
What Are the Disadvantages?	94
When Is This Integrated Model Useful?	94
How to Integrate the Curricula Working With Model 8: Integrated	95
Model 9. Immersed	102
What Is the Immersed Model?	102

What Does It Look Like?	103
What Does It Sound Like?	103
What Are the Advantages?	103
What Are the Disadvantages?	103
When Is This Immersed Model Useful?	104
How to Integrate the Curricula Working With Model 9: Immersed	108
Model 10. Networked	110
What Is the Networked Model?	110
What Does It Look Like?	111
What Does It Sound Like?	111
What Are the Advantages?	111
What Are the Disadvantages?	111
When Is This Networked Model Useful?	112
How to Integrate the Curricula Working With Model 10: Networked	116
Appendix. Assessing Curriculum Integration: Units of Study	118
Appraising Curriculum Integration	118
Appraising the Integrity of the Breadth and Depth of the Curriculum Integration Unit	119
Sample Rubric	120
Assessing the Effectiveness of the Unit in Terms of Student Achievement	124
General Rubric	125
History Rubric	125
Language Arts Rubric	125
Conclusion	127
References	128
Index	134

Introduction

To the young mind every thing is individual, stands by itself. By and by, it finds how to join two things and see in them one nature; then three, then three thousand; and so, tyrannized over by its own unifying instinct, it goes on tying things together, diminishing anomalies, discovering roots running underground whereby contrary and remote things cohere and flower out from one stem. . . . The astronomer discovers that geometry, a pure abstraction of the human mind, is the measure of planetary motion. The chemist finds proportions and intelligible method throughout matter; and science is nothing but the finding of analogy, identity, in the most remote parts.

—Emerson

WHAT IS THIS BOOK ALL ABOUT?

To help the “young mind . . . [discover] roots running underground whereby contrary and remote things cohere and flower out from one stem” is at once the mission of the teacher and of the learner. To that end, this book presents models to connect and integrate the curricula in a more coherent fashion.

Yet the question begging for an answer is, “What does integrating the curricula mean?” Does it mean sifting out the parcels of each overloaded discipline and focusing, in depth, on the true priorities, the enduring learnings (Wiggins & McTighe, 1998) (Cellular Model)?

Yet the question begging for an answer is, “What does integrating the curricula mean?”

Does it mean integrating or connecting yesterday’s lesson to today’s topic? Or relating all issues studied in the biology class to the concept of evolution? Or studying concepts such as power and isolation throughout social studies topics? Does it mean making connections explicit rather than implicit with every classroom opportunity (Connected Model)?

Does integrating curricula mean targeting multidimensional skills and concepts into one lesson (Nested Model) or mapping the curricula by rearranging the sequence of when a topic is taught to coincide with a parallel topic in another content area (Sequenced Model)? Does it mean integrating one subject with another through the learner’s conceptual eye or selecting an overall theme (such as persistence or argument) or a simple topic (such as transportation) to use as a “big idea” thematic umbrella (Shared Model)? Or is it more deductive in nature, such as selecting a book, an era, or an artist and weaving those natural and obvious themes into the fabric of the discipline (Webbed Model)?

Does integrating curricula mean integrating the content of what is taught with cognitive tools (predicting, classifying), cooperative strategies (debating, finding consensus), and technical tools (computer skills, electronic media) that cross disciplines and spill into real-life situations (Threaded Model)? Or does it encompass interdisciplinary team discussions and planning in which conceptual overlaps (structures, cycles) become the common focus across departments (Integrated Model)?

Does integrating the curricula mean exploiting integrative threads sparked from within the intense interests of the learner (photography, hunting, dancing) to connect past experiences and prior knowledge with new information and experiences (Immersed Model)? Or does it mean reaching out to build bonds with experts in the area of interest (hunting, environmentalist, cartographer) through networking (Networked Model)?

<i>Model</i>	<i>Definition</i>
Cellular Model	Focusing on priorities of each course
Connected Model	Making explicit connections with each classroom opportunity
Nested Model	Targeting multi-dimensional skills and concepts into one lesson
Sequenced Model	Rearranging sequence when a topic is taught to coincide with a parallel topic in another discipline
Shared Model	Integrating one subject with another through the learner's conceptual eye
Webbed Model	Weaving natural and obvious themes of a subject (such as the work of an artist or writer) into the fabric of a discipline
Threaded Model	Integrating what is taught with cognitive tools, strategies, and technical tools that cross disciplines
Integrated Model	Involving interdisciplinary team discussions when planning curriculum
Immersed Model	Connecting past experiences and prior knowledge with new information
Networked Model	Building new bonds of interest with other experts through networking

The answer, of course, is that integrating the curricula can be any or all—and more—of the aforementioned models. Each teacher and each learner views the integration process differently. Each finds natural and robust ways to connect the world in search of deeper meaning and richer understanding. Each seeks the relatedness between and among things to discover “roots running underground whereby contrary and remote things cohere and flower out from one stem.”

WHY BOTHER?

Why bother being concerned with a coherent curriculum? What is the rationale for connecting ideas, discerning themes, and threading skills? The answer lies in the four winds of change, coming from four distinct directions, that create the urgency for a more integrated curriculum. The north and south represent the ideas of educational theorists and the challenges of practitioners; the east and west represent the concerns of parents and the perspective of students themselves. From the theorists come data on teaching, learning, and the human brain; from the practitioners, frustration with an overcrowded standards-based and test-driven curriculum. From opposite vectors, parents are concerned about student preparation and readiness for real-world issues, while students see learning as fractured and not very relevant. A closer look at these crosswinds of change reveals their impact on the current educational climate of school reform in our nation's schools.