

Introduction

THE WHYS AND WHEREFORES ■

The rationale supporting the idea of a holistic, integrated, interdisciplinary curriculum is fueled by a number of significant forces that are referred to here as the *winds of change*. These winds of change come from four directions. The winds from the north and south represent the ideas of the educational *theorists* and the challenges of the school *practitioners*, while the winds from the east and west represent the concerns of the *parents* and the perspectives of the *children*. From the theorists comes data on teaching and the human brain; from the practitioners comes frustration with an already overcrowded curriculum; from the parents comes concern for student preparation and readiness for issues outside the classroom; and from the children comes a feeling that learning is too fractured and fragmented to apply to real-life situations. A closer look at these crosswinds reveals their effect on the current climate and curriculum of our nation's schools.

The Theorists

The forceful winds of change have brought about curricula that are based on complex experiences in which students are immersed in multiple ways of learning and knowing (Gardner, 1983; Kovalik, 1993). The search for meaning is basic: The brain has memory systems for rote learning and spatial memory and performs many functions simultaneously (Caine & Caine, 1991). Each brain has a unique profile of multiple intelligences—verbal, musical, logical, spatial, bodily, interpersonal, intrapersonal (Gardner, 1983), and naturalist (Gardner, Kornhaber, & Wake, 1996). These many ways of receiving information and expressing ourselves lead naturally to integrated curricula, ongoing and authentic projects, and differentiated and thematic instruction (Willis, 1991).

The Practitioners

Information doubles every year and a half (Burris, 1985). As one university professor told his premed students, “By the time you become acting physicians, 50 percent of what we’ve taught you will be obsolete . . . and we don’t know which 50 percent” (Fogarty & Bellanca,

1989, p. 30). Curriculum overload is a reality that kindergarten to college teachers face every day. Health and safety, consumer issues, marriage and family living, integrated technology—there is no end to it. Life skills—thinking, organizing, assessing, problem solving, decision making, cooperating, collaborating—inundate the schedule.

The problem of trying to cover too much material in too short a time is aptly described by Hunter (1971). According to Hunter, covering the curriculum can be like taking a passenger to the airport. You rush around and hurry up and get to the airport on time, but you leave the passenger at home. In the flurry of curriculum coverage, some students are left behind. Therefore, the winds of change indicate that it is important to seek ways to “selectively abandon” and “judiciously include” certain material (Costa in Fogarty, 1991a) by integrating the curriculum both within a single discipline and across subject matter content (Fogarty, 1991a).

The Parents

The father of a 13-year-old commented on the fragmentation involved in a typical cellular model of schooling for the eighth grade:

Thirty examples to do for math homework, 20 minutes of trombone practice, an autobiography to complete, the verbs to learn for a test, and a chapter to read in the science text.

There is a need to examine what students learn under these circumstances. Life can become a treadmill. For some students, “getting through” school becomes a matter of survival. Surely, we must wonder: What do we want kids to know 25 years from now? And, we must create organizational structures that eliminate obstacles and enable students to grow and learn (Carbol, 1990, p. 89).

This wind of change means schooling for a lifetime, not for a test (Bellanca & Fogarty, 1991). In terms of relevant learning, one student sums it up like this: “I have a million things on my mind, and not one of them showed up on the test.”

The Children

One high school student likened the fragmented curriculum to a vaccination: “Math is not science, science is not English, English is not history. A subject is something you take once and need never take again. It’s like getting a vaccination; I’ve had my shot of algebra. I’m done with that” (Fogarty, 1993, p. 5). Whereas subject matter content falls neatly into discipline-based departments, students, unfortunately, do not compartmentalize themselves or their learning as readily. Learning is incidental, inductive (Kovalik, 1993); it’s holistic and it’s interactive (Bellanca & Fogarty, 1991). Kids learn the complex skill of speaking a language from authentic interactions with other individuals. So, what does this wind of change mean? It means a shift toward holistic, experiential

learning that leads to lifelong skills and equal opportunities for all children to learn.

The Implications

The winds of change are stronger than we think. The brain research, the unloading of an overloaded curriculum, the necessity for the life skills of thinking and cooperating, and the call for learner-centered schools are all forces that are moving educators toward integrated, holistic, and authentic learning. The logic of integrating curricula with multiple intelligences is embedded in the concepts of *curriculum* and *instruction*. Whereas curriculum planning concerns itself with the big picture and the scope and sequence of the various disciplines, the instruction typically focuses on the teaching methodology or the delivery of the curricula.

School reform movements in several states and provinces across North America have targeted integrated, holistic, and natural approaches to curriculum and instruction. As a result, models, or frameworks, for integration have emerged. These models either build integrated curricula around certain *themes*, or “big ideas,” or they develop the curricula by *threading* life skills, such as thinking and organizing, across subject matter content. Instruction, on the other hand, is frequently integrated by targeting various learning styles. By incorporating activities that tap into different modalities, the instruction and assessment are presented in connected and holistic ways.

Curricula that are integrated with themes and threads can be easily connected to instruction and assessment that are integrated with multiple intelligences. In fact, when the model for *integrating the curricula* is combined with the model for *multiple intelligences*, the result is *integrated learning*:

Integrated Curricula + Multiple Intelligences = Integrated Learning

A LOOK AT THE BOOK ■

The content of this book is presented in four sections: theories, teams, themes, and threads. In Chapter 1, voices from both the tower (academia) and the field (the classroom) provide the underlying theories for the development of teams, themes, and threads. Several theories and theorists are included. Chapter 2 explores the concept of developing teacher teams to implement holistic, integrated, and interdisciplinary approaches to curriculum. Chapter 3 covers themes and presents a six-step process for developing thematic learning units that focus on higher-order thinking, mindful decision making, and productive problem solving. The final chapter highlights integrating the curriculum by “threading” life skills within single disciplines and across subject matter. The authors’ note, at the end of the book, briefly describes the assessment issues surrounding

integrated curricula and holistic instruction with multiple intelligences. It also includes a sample lesson that incorporates the types of assessments described.

An Overview of the Multiple Intelligences

The **VISUAL/SPATIAL** intelligence epitomizes the imagination of the mind's eye, illuminating the "Show Me!" cue statement.

The **LOGICAL/MATHEMATICAL** intelligence represents the full range of reasoning skills and signals the rationale for each of the major sections. It answers the question "Why Bother?"

The **VERBAL/LINGUISTIC** intelligence is identified by the power of the written and spoken word, which is at the heart of this intelligence. This section is cued by the heading "Who Says?" and focuses on the leading voices providing the research base for each major element.

The **MUSICAL/RHYTHMIC** intelligence represents the messages carried through the patterned rhythms of the human mind. Sections that focus on this intelligence are labeled with the heading "I Hear It!"

The **BODILY/KINESTHETIC** intelligence, labeled "Just Do It!" is covered in Chapters 3 and 4, and includes the headings "Take 1," "Take 2," and "Take 3" to designate elementary, middle, and senior level activities, respectively.

The **INTERPERSONAL/SOCIAL** intelligence represents the give-and-take interactions between people. Sections covering this intelligence are labeled "Can We Talk?" and cue the processing portion of each chapter.

The **INTRAPERSONAL/INTROSPECTIVE** intelligence is signified by the heading "What's in It for Me?" This section suggests a reflective strategy for readers to help them internalize the key elements of each chapter.

The **NATURALIST/PHYSICAL WORLD** intelligence represents the observations and distinctions made in the natural world. The heading "I See It!" indicates an opportunity for the reader to make observations that relate to the world around him or her.

The **EXISTENTIAL** intelligence seeks answers to big questions that are often beyond sensory data. This intelligence is signified by the words "I wonder. . ." to represent its global and open-ended thinking.

Understanding the Multiple Intelligences		
Visual/Spatial	Show Me!	Give me the big picture. Show me an overview. Let me see the idea.
Logical/ Mathematical	Why Bother?	What's the rationale? Why does this make sense? Why is this such a good idea?
Verbal/ Linguistic	Who Says?	Who are the leading voices? What does the research say? Who are the proponents of this idea?
Musical/ Rhythmic	I Hear It!	I hear the input. I am internalizing the music, rhythm, and beat of this idea. Its melody is in my head.
Bodily/ Kinesthetic	Just Do It!	How do I use it? How is it useful to me? Let's dig in and do it.
Interpersonal/ Social	Can We Talk?	Can we discuss the idea? What are the pros and cons? How can we evaluate this critically and fairly?
Intrapersonal/ Introspective	What's in It for Me?	How does this affect me? What is my connection to this idea? What will I get from this?
Naturalist/ Physical World	I See It!	How does this affect my world? What do my observations tell me? How does this connect to the natural world?
Existential	I Wonder . . .	Why am I here? How does this fit into the universe? What is the big picture?