Chapter VIII

Technology Content, Process, and Standards

Introduction

If status of a school subject is at issue, then content, benchmarks, and standards cannot be underestimated. Of course, the question is what content and what (or whose) standards? Technology has suffered as a school subject in many ways because of the lack of consistent content and a defensible set of standards. What technology should a student in grade 2 know about and be able to use? What about grade 6, grade 8, grade 10, or grade 12, at graduation? What are the benchmarks for each grade level? We do not yet know. Should we have consistent technology content and standards for all students from K-12? Should all teachers abide by the content and standards? Should we have exams to monitor the students and teachers? Or should teachers have the freedom to teach what they want? If a student moves from one school to another, he or she will face a different curriculum with different goals. But the teachers will have the freedom and power to make professional judgments about what to teach. Who should make these judgments?

As indicated in the previous chapter, there is one, and only one, persuasive justification for the inclusion of technology studies in the schools. That justification is the content of technology. As recent as ten years ago, we were unable to speak of "the content" of technology in North American schools. The situation has changed and persuasive cases have been made to move technology studies from the margins of

the schools to the center. Technology is now an extremely relevant subject in its own right, with a well-established curriculum and fund of instructional methods. In Chapter VII, we began with a comprehensive rationale for teaching technology in the schools. This chapter deals generally with content and standards, and specifically with the most recent projects to specify content and standards for technology studies.

Consistency in content and standards from school to school has always been a contentious issue. In no subject has this been more contentious than technology. To date, technology teachers in North America have enjoyed near total liberty in offering any curriculum they pleased. Currently, Canadian students who move from one province to another, or from school to school, are penalized for the lack of consistency from province to province. In the U.S., this has also been the case, with differences between states, districts, and schools. Technology studies differs from school to school in BC and students or teachers who relocate find little, if any, consistency and continuity. Even the names are inconsistent. There is no examination system to generate consistency and hold teachers accountable to standard sets of content. Nevertheless, this is changing through content standards for technology. Consistency, articulation, and accountability are the operative words in technology studies at this point.

Technology Content

There are fundamentally three sources of content: individuals, culture, and nature. Content derived from an individual will be developmental, physical, or psychological. Content derived from nature will tend to be biological or ecological and based on basic needs and survival. Content derived from culture will be institutional, sociological, or spiritual. The emphases of content derived from each source will range from practical to academic. Over the past century, technology teachers have derived content from all three sources. Currently, technology educators are focusing their efforts on content derived from culture, or more specifically, from a structure or discipline of technology. The source of content has always been contentious in technology studies, partially due to our activity-based practices and partially due to the changing state of technology. How can we establish stable content when technology is inherently dynamic? Should we focus on technological processes, which tend to be transferable? Should we focus on technological occupations and tasks, which tend to be accessible and current? Should we focus on technological concepts, which tend to be durable? There is not an airtight argument to be made for any of these social sources of content. Each has its benefits and problems. However, given the politics of the schools in this new century, where survival depends on establishing a subject as an academic discipline with coherent K-12+ content, technology educa-

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