

Introduction to Special Theme Issue

Curriculum Change in Technology Education Differing Theoretical Perspectives

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Professions periodically undergo name changes. The name "technology education" is rapidly replacing "industrial arts," and there seems to be little doubt that by the end of the decade the transformation will be complete. There is less certainty, however, concerning what is technology education. Is it industrial arts renamed? Does it reflect new instructional content or methods? Will a new student population be served? Most proponents of technology education argue for a significant restructuring of the former industrial arts. However, except for the wide use of general industrial categories for curriculum organizers, such as transportation, manufacturing, construction, and communication, there is little professional agreement on specific curriculum components. This is partly due to the complexity of technology. It defies easy definition. This is also partly due to reform itself. The intellectual disarray which often accompanies reform movements characterizes technology education.

Curriculum theory provides one way to guide educational change. Although curriculum development is an inexact process because many of the decisions are largely value judgments, there are, nevertheless, ways to go about it which produce consistent results. Among curriculum theorists there is general agreement that there are five basic curriculum design patterns. Each is supported by an underlying rationale, and each produces a curriculum design with distinct characteristics. A curriculum design pattern provides a logically coherent way to organize instruction.

While different theorists may use different terminology, the five basic curriculum design patterns are a) academic rationalist (separate subjects); b)

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technical/utilitarian (competencies); c) intellectual processes; d) personal relevance; and e) social reconstruction. Each design pattern is supported by a rationale which guides the selection and ordering of content.

The five articles in this special issue examine curriculum change in technology education through one of the different theoretical perspectives. In the first article, Erikson outlines the characteristics of the academic rationalist design pattern, and argues that technology education can clearly fit within this perspective. While acknowledging the lack of a clearly defined "discipline" of technology, the author suggests that a new discipline is emerging, and that the method through which technological problems are solved may be one source of curriculum content. The second article discusses from a historical perspective the competencies, or what is more recently termed the technical/utilitarian design pattern. This pattern has been applied widely to industrial arts. It is suggested that before a similar application can be made to technology education there are key issues that must be addressed.

In the third article, Johnson outlines the characteristics of the intellectual processes design pattern, a newly emerged perspective. The author presents a rationale for this design pattern and identifies the sources of content and organizing concepts. In the fourth article, Petrina observes that while the personal relevance design pattern is compatible with most statements about the purpose of technology education, curriculum plans generally do not emphasize this perspective. After examining the development and characteristics of the personal relevance pattern, the author identifies some of the issues that must be resolved before wider application can be achieved. In the final article, Zuga explores the social reconstruction perspective. What is meant by social reconstruction is examined, and ideas are presented for organizing a social reconstruction curriculum. The author observes that this perspective will challenge technology educators to take a stand on many of the social issues that surround the creation and use of technology.

Each of these design patterns has been applied to industrial arts education in varying degree. The extent to which they influence the development of technology education remains to be seen. Nevertheless, as the reconceptualization of industrial arts continues, technology education will have to draw from one or more of these design patterns if it is going to develop a coherent rationale for the selection of instructional content. The profession must continue to engage in a dialogue which explores the full curricular implications of the different theoretical perspectives. The articles in this issue are presented as a contribution to this dialogue. °