

Social Reconstruction Curriculum and Technology Education

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. . . to shape the experiences of the young so that instead of reproducing current habits, better habits shall be formed, and thus the future adult society be an improvement on their own. (Dewey, 1916, p. 79)

In the first half of the century, during the depths of the Great Depression, Progressive educators set out to reform education by calling for a social reconstruction curriculum orientation. In this paper I will explore social reconstruction with regard to schools, curriculum, and technology education. In the first half of the paper I will explore what was meant by social reconstruction, the way in which it was implemented in experimental schools, and the legacy of social reconstruction. In the second half of the paper I will discuss the role of processes in technology education curriculum, provide ideas for organizing a social reconstruction curriculum orientation in technology education, and list examples of what a social reconstruction curriculum orientation in technology education is not.

Social Reconstruction

In response to social conditions of the day, Progressive educators during the early half of the century were advocating a restructuring of education in this country. Many of the Progressives believed that, due to school practices, schools and society were caught in a dualistic relationship which separated the school from mainstream society and created an isolation of the schools. They believed that what happened under the auspices of the schools was not real or reflective of the problems in society (Bode, 1933; Counts, 1932; Cremin, 1977; Dewey, 1916; Dewey and Childs, 1933). Furthermore, the Progressives argued that the artificial environment of the schools was miseducative in that the youth of the country were not prepared to see and understand the values and issues which would confront them as they became adults (Dewey and Childs, 1933). As a result of these beliefs, some Progressives proposed that the schools create a new social order (Counts, 1932).

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Definition

Creating a new environment in the schools, 'reconstructing' the existing environment, was the Progressive agenda, but how that was to be accomplished was not universally agreed upon (Cremin, 1976). As with any other idea, a range of opinions were held with Counts proffering, perhaps, the most radical opinion. Counts (1932) envisioned a restructuring of American society and economy as he said, 'The times are literally crying for a new vision of American destiny. The teaching profession, or at least its progressive elements, should eagerly grasp the opportunity which the fates have placed in their hands.' (p. 50) Others were less radical in their suggestions for reform, but did believe that social reconstruction was the central aim of a good education and was necessary in schools, if not, society at large.

Citing that many members of society were far too concerned with individual needs, that the fervent nationalism of the times inhibited international cooperation, and that the economic depression was signalling problems with the existing society and economic structure (Dewey and Childs, 1933) mainstream Progressives believed that the schools could be structured in a new way, and, in turn, encourage students as future citizens to reconstruct society. The focus of mainstream Progressives was on the restructuring of schools; an effort which many hoped would lead to eventual changes in society. For schools and students, mainstream Progressive educators had several goals which included: orienting students and helping them commit to the life in which they would participate; helping students to develop intellectual, esthetic, or practical interests; setting up an environment which would lead to a deeper understanding of a democratic way of life; and reconstructing the procedures of the school through experimentalism (Hullfish, 1933). Mainstream Progressive educators differed with Counts in that they saw a future for the existing democracy. About the social reconstruction of the mainstream Progressives, Dewey and Childs (1933) said:

Our continued democracy of life will depend upon our own power of character and intelligence in using the resources at hand for a society which is not so much planned as planning --- a society in which the constructive use of experimental method is completely naturalized. In such a national life, society itself would be a function of education, and the actual educative effect of all institutions would be in harmony with the professed aims of the special educational institution. (Dewey and Childs, 1933, p. 65)

Interestingly, the Progressives based their interpretation of social reconstruction in experimentalism, science, and technology. Experimentalism and faith in science and technology are fundamental to the philosophy of pragmatism. As a leading pragmatic philosopher, Dewey conceived of pragmatism as a uniquely American philosophy which dealt with the concepts of the instrumentalism of technology and the experimentalism of science as inquiry (Hickman, 1990; Smith, 1980). It is no wonder, then, that Dewey advocated experimentation in schools for both the students via the curriculum and for

administrators as they determined the structure of schools. Moreover, Dewey and Childs (1933) spoke of the use of instrumentalism as a technology of education which would influence society: 'An identity, an equation, exists between the urgent social need of the present and that of education. Society, in order to solve its own problems and remedy its own ills, needs to employ science and technology for social instead of merely private ends.' (p.64) Make no mistake about it, though, the purpose of the use of science and technology was to be a social purpose, not an individual purpose and not a business purpose. Individual and business values and actions were clearly criticized by the Progressives who linked these values and actions to the evident ills within society during the first half of the century (Bode, 1933; Counts, 1932; Dewey and Childs, 1933).

Implementation

A number of experimental or laboratory schools were set up during the Progressive Era in education. It is from these schools that examples of what social reconstruction would look like in education can be drawn. Bode (1933) explains social reconstruction as a 'continuous reconstruction of experience' (p. 19) in daily school practice with the following examples:

This reconstruction of experience, if it is to have any significance, must take the form of actual living and doing. Consequently the school must be transformed into a place where pupils go, not primarily to acquire knowledge, but to carry on a way of life. That is, the school is to be regarded as, first of all, an ideal community in which pupils get practice in cooperation, in self-government, and in the application of intelligence to difficulties or problems as they may arise. In such a community there is no antecedent compartmentalization of values.

There are a number of important points here about social reconstruction. Social reconstruction involves active participation through 'doing.' However, this is not mindless drill, skill development, or even the completion of personally chosen projects, because the Progressives clearly intended a social purpose to all activity. They viewed the school as a community in which values and habits useful in the greater community would be instilled through practice. This was not to be an activity such as job training or skill development which fit students into preconceived notions of what adults believed they should become. That is why there was an emphasis on self-government by students and that is why Bode (1933, pp. 19-20) continued: 'Shopwork, for example, is not dominated by the idea of personal profit, but becomes a medium for the expression of esthetic values and social aims. The quest for knowledge is not ruled by the standards of research, but is brought into immediate relation with human ends. Judgements of conduct are not based upon abstract rules, but on considerations of group welfare.' The message is clearly one of social purpose as the guiding force for the reconstruction of experience within the school. Social purpose also guided the selection of content and activities which formed the curriculum. The social purpose is documented in an overview of the science and technology curriculum at The Ohio State University Elementary School and Kindergarten

in 1935: 'In evaluating our results, we asked ourselves thoughtfully: 'Does the educational experience we are setting up provide for real participation by each student in each of these functions of living?'' (Publications Committee, 1935, p. 121) The curriculum of the laboratory school included a core of study about the preparation of materials which was specified to take place in the science, all of the arts, and the home economics laboratories. Industry, distribution, and control were some of the topics to be studied in this core.

The Ohio State University laboratory school was organized about the concept of social reconstruction and was often cited as an exemplar of social reconstruction curriculum in action. The secondary school operated on the same guiding principles. The effectiveness of the secondary program was documented, uniquely, by the first graduating class who took it upon themselves to write and publish a book about their perceptions of the social reconstruction program they had followed (Class of 1938, 1938). In their extensive work the students explained how they created their school environment with teachers who served as friends and advisors. In the early years, much of the work that was done under the auspices of industrial arts involved modifying their own school environment by refurbishing the school building.

In the experimental schools of the Progressive Era social reconstruction curriculum involved student self government, the evolution of a community consciousness on the part of students, and group project work which focussed on the school, local, national, and international communities.

The Legacy

Very little evidence of the social reconstruction curriculum remains today. Vestiges of practices initiated in the experimental schools can be seen in efforts to operate student councils, attempts to provide students some free choice in projects, and endeavors to maintain school laboratories in technology and consumer science education. What happened?

Dewey and Childs 1933 critique of the failure to adopt social reconstruction educational practices during that era has an all too familiar ring today:

Why, even when the social concepts were retained in theory, were they treated in a way which left them mainly only a nominal force, their transforming effect on practice being evaded? Why were they so often used merely to justify and to supply a terminology for traditional practices? The reason which lies on the surface is that an abstract and formal conception of society was substituted for the earlier formal concept of the individual. General ideas like the transmission and critical remaking of social values, reconstruction of experience, receive acceptance in words, but are often merely plastered on to existing practices, being used to provide a new vocabulary for old practices and a new means for justifying them. (p. 33)

Essentially, Dewey and Childs are critiquing the failure to move from the academic rationalist curriculum of the Greek tradition and the personal needs curriculum of the Herbartian tradition. Educators are still struggling with these,

and other curriculum orientations today. Technology education has not escaped this struggle.

Cremin (1976 & 1977), with the benefit of hindsight offers an additional explanation of the lack of implementation in schools of the Progressives' idea of social reconstruction. He believes that Dewey failed to resolve the dualism between the school and society that he fought to overcome because he failed to account for the many institutions in society which provide education. Media, family, church, and industry are just some of the institutions which provide education that Cremin cites. Cremin argues that a contemporary conception of schooling must account for the influence of these institutions and their modes of education.

Phenomenologists and critical scientists provide other reasons for the lack of enduring social reconstruction curriculum reform. Vandenberg (1971), in a phenomenological analysis, views the reform efforts of the twentieth century as a Hegelian dialectic in which social reconstruction was an alternative view promulgated as a result of child-centered beliefs and was recombined with life-adjustment ideas in the post World War II period. More recently, Gonzalez (1982), critiquing from a Marxist perspective, charges that the Progressives 'never challenged the tenets of capitalist production' (p. 103).

These and many more interpretations can be offered in order to explain the absence of social reconstruction curriculum today. Dewey and Childs (1933), however, remain eerily accurate in their sense of educational ills both in their time and today as they wrote:

Actually pupils have been protected from family, industry, business, as they exist to-day. Just as schools have been led by actual conditions to be non-sectarian in religion, and thus have been forced to evade important questions about the bearings of contemporary science and historical knowledge upon traditional religious beliefs, so they have tended to become colorless, because [sic] neutral, in most of the vital social issues of the day. The practical result is an indiscriminate complacency about actual conditions. The evil goes much deeper than the production of a split between theory and practice and the creating of a corresponding unreality in theory. Our educational undertakings are left without unified direction and without the ardor and enthusiasm that are generated when educational activities are organically connected with dominant social purpose and conviction. Lacking direction by definite social ideals, these undertakings become the victim of special pressure groups, the subject of contending special interests, the sport of passing intellectual fashions, the toys of dominant personalities who impress for a time their special opinions, the passive tools of antiquated traditions. They supply students with technical instrumentalities for realizing such purposes as outside conditions breed in them. They accomplish little in forming the basic desires and purposes which determine social activities. (pp. 34-35)

In other words, at best, schools are insulated from society and serve to preserve the status quo and, at worst, schools are subject to the whims of fads and special interest groups. If administrators and teachers do not take a stand on the issues,

students will not be able to take a stand. We, as educators have not taken a stand. As technology educators most of us promote a sterile conception of a discipline based subject matter, rather than grappling with the many social issues and problems which result from our use (as a society) of technology.

Creating a Social Reconstruction Curriculum for Technology Education

Technology educators have relied upon technical processes as a means of generating curriculum content. This is true for traditional programs as well as contemporary programs. Teaching about technical processes is essential in a 'hands on' program. A social reconstruction curriculum orientation would be 'hands on.' It is the way in which the technical processes are organized that distinguishes the curriculum orientation. In this section I will discuss the prominent role of technical processes in technology education curriculum, examples of a social reconstruction orientation in technology education, and what is not a social reconstruction curriculum orientation in technology education.

Processes as Traditional Curriculum Content

There are many ways in which to identify and define appropriate content for technology education. To this time, technology educators have concentrated primarily on categorizing processes either via the traditional content of industrial arts or through contemporary proposals for industrial technology education and technology education. For example, industrial arts educators started with a material such as wood or a process such as drawing and using a form of task analysis categorized the processes students needed to know in order to transform the material or create an acceptable drawing (Silvius & Bohn, 1976; Silvius & Curry, 1967; Wilber, 1948). The approach used in the Maryland Plan appears to eschew a focus on processes while students select content. However, processes eventually are taught as they are required by the individual student's project (Maley, 1973). In the same manner, industrial technology educators started with an inputs-processes-outputs model of manufacturing or constructing and categorized a wider array of processes needed to manufacture and construct (Towers, Lux, & Ray, 1966). The industrial technology education curriculum was more inclusive in that it incorporated the processes involved in managing the businesses of manufacturing and construction. Contemporary technology education curriculum follows the same route as industrial technology curriculum by using an inputs-processes-outputs model for generating curriculum (Snyder & Hales, 1981). Some variation exists with the British models of design and technology curriculum in that problem solving becomes the focus of the curriculum and problem solving processes in addition to technical processes are used to organize curriculum (Barlex & Kimbell, 1986; Kimbell, 1982; Williamson & Sharpe, 1988).

It is clear that technology educators teach about processes. The differences in the curriculum orientations (when and how the processes are taught) are rooted in teachers' beliefs about education and students. These beliefs cause

the teacher to select and organize the processes in a variety of ways. The differences lie in the way in which the teacher chooses to slice the pie of the current content universe of technical processes.

Organizing Technology Education with a Social Reconstruction Orientation

In order to implement a social reconstruction curriculum orientation in technology education social problems which have particular relevance to technology are chosen and become the means for organizing technical processes. Technical processes are taught only as the need to know them in order to solve the social problem arises. For example, pressing social problems such as designing and constructing low cost housing for the homeless, refurbishing low cost housing, or retrofitting housing with energy saving devices becomes the thrust of a social reconstruction curriculum in a construction class. Students may never get a chance to try all of the processes, such as installing shingles on a roof or wiring, needed in order to build a contemporary home. The teacher is more concerned about the social problem and creating a community with students and society and is less concerned about 'covering the content.' Only the technical processes needed to construct the alternative form of housing are taught to those students who need to know the technical processes. The teacher also trusts that the greater social goal is of more value than specific content. The teacher believes that the experience of solving a problem such as creating low cost shelter for the homeless will instill in students habits and enthusiasm for seeking out the knowledge and skills needed to take on additional problems which will involve other knowledge and skills. The teacher also believes that by example and practice with selected processes that attitudes of safety and pride in quality will transfer to new processes. In this way the teacher hopes to help a student to be not dependent upon instruction in order to function as an adult in society, but to be willing to experiment and to try new ideas and skills.

We are not lacking in pressing social problems which relate to technology. Each content area of technology education can be used as a vehicle for attacking social concerns. Some examples include:

Transportation.

1. Designing and creating less polluting power systems for vehicles
2. Designing and creating prototype alternative transportation systems for the community and presenting those designs to city council

Manufacturing.

1. Investigating the effects of local manufacturing firms policies on the local environment and either honoring the firms or approaching the firms with suggestions for improvement
2. Investigating and attempting to develop biodegradable polymers
3. Creating a manufacturing business which makes a product identified as valuable to a select market such as senior citizens or low socio-economic

status (SES) citizens in the local community and marketing that product to them on a cost recovery basis

Communication.

1. Creating and testing personal emergency communication devices for handicapped people
2. Examining advertising claims by doing product testing and reporting the results to the local community

Construction.

1. Conducting an energy audit on the school building and making recommendations to the school board for retrofitting energy saving devices
2. Conducting energy audits and correcting the deficiencies on students' homes, homes of the elderly, and homes of low SES citizens

The list of examples is bounded only by the imagination of the students and teachers who, in partnership, implement a social reconstruction curriculum orientation in technology education.

What A Social Reconstruction Curriculum Orientation Is Not

Another way of illustrating something is to discuss what it is not. I choose to discuss what a social reconstruction orientation to curriculum is not by using illustrations drawn from contemporary technology education practices.

It is not having the teacher choose course content or the social problems. It is not isolating students in glitzy cubicles in front of computer screens which feed a standardized curriculum to all students during their rotation through a modular curriculum. It is not having all students complete the same project. It is not having students solve unrelated problems created by teachers in order to address course content or to keep the students active. It is not failing to challenge students to be critical of their school and culture (of which industry is a part). It is not teaching technological processes in an uncritical manner. It is not permitting individual students to make projects solely to satisfy individual needs. It is not teaching students how to follow directions all of the time. It is not determining what content a child needs to know in the future in order to be a successful adult, thereby limiting the potential of the child. It is not lacking the commitment to take a stand, one which will not be universally agreed upon, on issues, all issues. It is not discouraging students from taking a stand on issues.

Whatever technology education activities are conducted in a social reconstruction curriculum orientation, there is a social purpose to the activity. That social purpose should be left to the choice of the students, because the students are to be encouraged to take on the responsibility of recreating society.

Summary

Several purposes of education have been prominent in this country since the beginning of public education. Social reconstruction is one of the unique categories of purpose which has helped to shape educators' thinking about curriculum. Social reconstruction curriculum tries to involve students in school and community life in order to help them to become adults who can reconstruct and improve society.

Many technology educators have tried activities with students which were motivated by a social reconstruction perspective, but few have implemented a complete program. In fact, there are few examples of any program which is singular in curriculum orientation.

There is a greater problem with the social reconstruction curriculum orientation. This is the focus on social problems and the inescapable problem of having the choice of the social problem reveal a value orientation. The Progressives were well aware of this underlying tension which involves taking a stand on the issues confronting today's society. It is much easier to remain in the isolated school environment than to declare one's political orientation in an effort to attempt to remedy social problems, for it is in the way in which one chooses to solve the problem that one's political ideology is revealed.

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