ABSTRACT
Since the introduction of child-centered thinking in educational research, discussion has continued on whether the purpose of public schools is to teach students predetermined, set subject matter or to allow them more control over their education. Traditionalists have asserted that scientific methodology must be used to develop learning environments. The aim of the Essential Schools Movement (ESM) is to improve middle and secondary schools and to ensure that students learn cognitive skills, students are not treated as receptacles, students are not sorted, schools model democracy, and students' strengths and weaknesses are recognized. Another aim of ESM is to organize curriculum around mathematics/science, the arts, and history/philosophy. The technocratic method of schooling supports the relationship between school and the work place, efficiency, and preparing the student for the professional world. It stresses coherence, authority, and external sources for truth and value, and it discourages questioning. Central to the ESM is the exhibition in which a student demonstrates understanding of a subject and some imaginative capability. The ESM can help reshape public schools and increase the role that students have in determining the direction of their education. (JPT)
TECHNOCRATIC RATIONALITY, ESSENTIAL SCHOOLS THEORY, AND THE POTENTIAL EFFECT OF ONE ATTRIBUTE OF THIS THEORY ON THE PURPOSES OF PUBLIC SCHOOLS

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INTRODUCTION

Since the introduction of child-centered thinking in the Laboratory School at the University of Chicago just shy of a century ago educators, scholars, and knowledgeable lay people have recognized the existence of a continuing dialectic between those who claim that the purpose of public schooling is to provide for the systematic organization and transmission of predetermined subject matter to students, and those who claim that whatever subject matter is taught in the school should naturally emerge from the felt needs and interests of students. The former have laid claim to the belief that the method of science can be applied to the systematic development of learning environments; the latter question this assumption, claiming instead that learning and development can be guided by the interests of the student. The dialectic between these groups of well-intentioned educators waxes and wanes periodically, but never does there seem to be that measure of rapproachment which would suggest that a synthesis between these opposing perspectives is on the horizon. This may, however, change because of the implications of the Essential Schools Movement (ESM).

Purposes

The purposes of this paper are: (a) to contrast selected attributes of the technocratic theory with those of the essential schools theory of schooling; and (2) to consider the potential effect of one significant attribute of the essential schools theory of schooling on the purposes of public schools.
Means

To achieve these purposes I am going to use, in addition to this paper, the image of the triangle to which Sizer alludes early in his work as the basis for examining and reporting his findings about secondary schools. However, instead of relying on word pictures as he does, several visual, three-dimensional forms will be displayed. These will enable me simultaneously to reveal images of the significant attributes of these quite different perspectives of educational theory.

Definitions

The term 'essential' seems to have been used for the first time in a book written by Michael Demiashkevich in a 1935 study of education in which he employed the term 'essentialism'. It received perhaps its widest recognition from an article written in 1938 by William Bagley "that presented a platform for a conservative reform movement in education." The basic theses of this platform stipulated that the purpose of the school is to transmit and develop the intellectual and moral discipline of all who attend the school; that the means to achieve this purpose is through an organized body of knowledge which exists prior to the knower and which should be rationally organized and transmitted within a framework of a predetermined, ordered series of subject matters, values and skills to all who attend the school; that teaching is, in essence, a transmitting activity; that the teacher, not the student, is the active agent in the teaching process; that such transmission should be done as effectively and efficiently as possible; and that the role of the school is to preserve and transmit the essential core of cultural knowledge to all who attend the school.

'Essential' has acquired a new meaning as a consequence of the emergence of (ESM). The basic theses of this movement to improve middle and secondary schools stipulate that the purpose of the school should be to help every student acquire good habits of mind; that the school should not be a factory, the student should not be a receptacle; that the school should not to be engaged in tracking or sorting students; that the school should model a rich democracy; that personalized learning which recognizes the strengths, the weaknesses, the worries, the hopes of each particular student is not just a courtesy or a luxury, but rather should be seen as a necessary
condition for the efficient and effective teaching of each student; that the daily procession of students through a series of unconnected subjects, repeated year after year, actually leads to little significant growth and development and should be radically revised; that the curriculum of the high school should be entailed within three integrated curricular domains, Mathematics/Science, the Arts, and History/Philosophy, accompanied by occasional "cross-domain" activity; that the study and learning of each student should be driven by their pursuit of personally established goals encased within EXHIBITIONS, which enable students publicly to reveal their grasp and use of important ideas and skills. Indeed, "the school's program would be to the largest practical extent the preparation for these exit Exhibitions." This is the significant attribute of ESM toward which I am directing the substance of this paper.

Technocratic theory of schooling

To most of us the technocratic theory of schooling requires little elaboration. It is, to identify but a few of its attributes, a conservative, functional way of thinking about the instrumental connection between formal schooling and the State. This connection stresses the relationship between the school and the workplace, the need to accept such modernizing trends as meritocracy, bureaucracy, depersonalization, efficiency and the importance of developing human capital to enhance industrial development and success in global economic competition.

One significant root of this theory can be found in the theory of scientific management which emerged during hearings before the Interstate Commerce Commission in September, October and November, 1910, and most often associated with the name Frederick W. Taylor. Taylor claimed that "there was always one best method for doing any particular job and this best method could be determined only through scientific study." In a book which has since become a classic he pointed out the basic principles of scientific management. When translated into practice these principles generated the basic elements of scientific management. These included time and motion study of a particular job, along with the study, analysis and improvement of tools and machines required by the job; standardization of the procedures related to doing the job; creation of what Taylor claimed was the most important element in scientific management, an element with two dimensions, the
'task' idea, which stipulated that management was to set definite tasks for each day for each worker, and the 'bonus plan' which was designed to induce workers to work at a higher rate of speed over extended periods of time; creation of a position named 'functional foreman' for the purpose of working closely with workers, seeing to it that they were doing their tasks properly, teaching them new methodologies when necessary; creation of a planning department, whose task was to establish the rules, and formulas which would replace the judgment of the individual workman.9

The role of the teacher, who is the 'worker' within this technocratic theory of schooling, is revealed by such notions as the teacher teaches, the students are taught; the teacher knows everything, the students know nothing; the teacher thinks, the students are thought about, the teacher talks, the students listen; the teacher acts, the students have an illusion of acting, the teacher chooses program content, the students adapt, the teacher is the important subject, the students are objects.

The student, the raw material to be processed, is expected to pay constant attention, act immediately when instructions are given, refrain from contesting when directions are given or demands made, be able to learn, that is, to listen and to accept in a conforming manner, to understand that one is not expected to make any discoveries or decisions of importance.

The subject matter which is taught is predetermined and transmitted to the students in carefully sequenced and packaged segments, usually followed by the use of standardized tests to acquire normative feedback from the students about the quantity of their learning.

Because of its rational effort to have students reproduce, not construct, knowledge, the technocratic theory of schooling serves, to use Gramscian language,10 a hegemonic role, both with its recognition of the values of criticism which emerge from the occupants of positions of power in our society, and with its intention to accommodate the needs of industry and capital by stressing the skills and knowledges necessary to sustain the power of this dominant industrial class.

The purposes toward which this theory are directed place great stress on the need for coherence. Certainty about knowledge and truth, and certainty about value, dominate this perspective. Truth is necessary as a preparation for life; value depends on some external source which exists, which can provide authoritative, foundational answers to our value dilemmas, which can eliminate relativism. There is a deep concern about the relation between the individual and society, with stress on the need to acquire a deep, unquestioning allegiance to the existing social order.
Thinking of any sort, when it does go on, is generally a form of naive reflection.

**Essential Schools theory of schooling**

This theory of schooling focuses not on the sorting of people, not on the identification of the able from the less able, but rather on the fundamental belief that the school's central purpose should be on helping all students acquire good intellectual habits of mind. For example, the habit of developing a perspective - considered the parts of an argument, separating opinion from fact, appreciating the value of each; of analyzing a point of view - considering arguments in a reflective way; of imagination - generating one's own view of a situation, considering different patterns in relation to future purposes; of empathy - sensing reasonable views of a common problematic, respecting all, honoring the most persuasive; of communication - acquiring what Bowers refers to as 'intersubjective communicative competence' and at the same time being a discriminating listener; of commitment - persisting, recognizing the need to act and doing so; of humility - knowing what one knows, what one does not know, one's limitations, the limitations of others, being disposed to acquire needed knowledge and skill and having the confidence to do so; of joy - sensing the wonder, the proportion in worthy things and responding with delight.

Sizer sees 'habit' as being closely related to 'disposition', which he suggests reveals a desire to want to apply something. To achieve a disposition "one must be convinced of [its] utility and reasonableness." These habits reflect what the school values, what sorts of intellectual knowledges and skills should be acquired and should inform the lives of the students. Without a clear awareness of these habits, much of what goes on in the secondary school leads to what Silberman called 'mindlessness.'

This stress on habits is rooted in the work of Dewey who claimed that "The essence of habit is an acquired predisposition to ways or modes of response, not to particular acts except as, under special conditions, these express a way of behaving. Habit means special sensitiveness or accessibility to certain classes of stimuli, standing predilections and averseions, rather than bare recurrence of specific acts. It means will." To Sizer "the purpose of education is not in keeping school but in pushing out into the world young citizens who are soaked in habits of thoughtfulness and
reflectiveness, joy and commitment."16 To deny any student these habits would be to "assign him or her to a second-class existence and to put the rest of the community at risk." 17

Two diplomas, a Diploma of Secondary Education (DSE) and an Advanced Secondary Diploma (ASD) would be awarded as a result of study.

The role of the teacher as a worker, as a specialist, as a transmitter of information, would be significantly diminished; with the teacher becoming much more of a generalist, assuming the role of a coach, similar to that suggested by Adler in his Paldela proposal,18 responsible for helping students develop the habit of learning on their own.

The cornerstone, the primary attribute, of a school affiliated with the Coalition for Essential Schools (CES), however, is the EXHIBITION. Preparation of an exhibition is guided by specific goals which a student has chosen to pursue in each of three integrated academic domains - Mathematics/Science, the Arts, History/Philosophy, and in one 'cross-domain' of study. It is this attribute of the ESM to which I would now like to address my remarks.

The Exhibition

The entire thrust of the ESM, and the CES which has emerged from this movement, is to create a learning environment in which students would become responsible for their own education. They would find themselves responsible for actively engaging in the construction and in the achieving of goals which they will have established as standards which will guide their educational endeavors. Yes, students would shape their own education. "In its original form," claims Sizer, "the exhibition is the public expression by a student of real command over what she's learned" (italics by this writer). Sizer claims further that an exhibition elicits proof both of the student's understanding and of some imaginative capability - it serves at once as evaluative agent and expressive tool. "We expect people," he continues, "to show us and explain to us how they use content - it's more than mere memory, it's the first real step towards coming up with some ideas of their own" (italics by Sizer). 19

Clearly this view of schooling is reminiscent of the efforts by Dewey to construct a child-centered environment for learning in his Laboratory School just shy of a century ago, and the subsequent efforts which guided those who shaped and
conducted the Eight-year Study during the 1930's. You will recall that five conclusions were generated by this study. "First, every student should achieve competence in the essential skills of communication - reading, writing, oral expression - and in the use of quantitative concepts and symbols. Second, Inert subject-matter should give way to content that is alive and pertinent to the problems of youth and modern civilization. Third, the common, recurring concerns of American youth should give content and form to the curriculum. Fourth, the life and work of the school should contribute, in every possible way, to the physical, mental and emotional health of every student. Fifth, the curriculum in its every part should have one clear, major purpose. That purpose is to bring to every young American his great heritage of freedom, to develop understanding of the kind of life we seek, and to inspire devotion to human welfare." 20 (Italics in the original).

Note the stress in this study on 'every student' learning, on a rejection of what Whitehead claimed was 'inert subject matter',21 and support for subject-matter that is 'pertinent to the problems' confronting youth, and to the need for every student to acquire habits related to the vision of democracy which guides our country.

Students would be expected not only to display their learning but, more importantly, to use their knowledge, to reveal habits of thoughtful use. The more that the material relates to the world of the student the stronger and deeper will be her knowing; and her feeling of competency and disposition to use her knowledge.

Eventually the student would be required to engage in what the Capshaw Middle School in Santa Fe, New Mexico, names a public 'rite of passage' exhibition.22 During such an exhibition the student has an opportunity to demonstrate what she has learned during the period of time in which the goal(s) which guided the student were being pursued. Here is where a 'portfolio' of the array of experiences encountered by the student will be maintained. Such a portfolio will include reports of experiences with teacher-generalists, with other persons in and out of the school, including peers, with whom the student has worked, who have contributed to her understandings while working on the project. Problems confronted, false starts, and methods used to resolve these impediments, would be among the materials retained in the portfolio.

At the secondary level such an exhibition would be required of a student in each of three integrated curricular domains, science and mathematics, literature and the arts, and history and philosophy. In addition, a minimum of one cross-domain
exhibition would be required of each student.

Knowledge would be viewed in a dynamic perspective, with rational, preconceived structures subject to reconstruction, to transformation, in light of the zones of uncertainty with which the student contends and the goal(s) which the student is pursuing.

Teacher-generalists from each of the three domains would understand and accept their responsibility for facilitating the work of students from domains outside their domain of specialization. Teacher responsibility for coaching students across the curriculum would become the norm for the school.

Clearly the number of students that could be involved in such a program of study would have to be reduced considerably from the present expectation for the daily processing of between 125 and 150 students in a factory fashion which dominates the technocratic theory which is so prevalent in our secondary schools today.

The most important purpose of the school in this process is to bring about the total involvement of the student in the determination of the ends and the means which would she would pursue as part of her educational endeavor. It is here that the student not only acquires the opportunity to relate to life experience with which the student has a deep connection, but also with a variety of human and physical resources, both within and without the school, from which she can draw as she pursues her goals. These goals, then, become the standards which guide her pursuit of learning.

Habits of mind and of character which we relate to Dewey's conception of reflective thought, the experience of felt uncertainties, of problematics in the indeterminate situations in which one finds oneself, the projection of ends-in view which one constructs as a consequence of identifying these problematics, a consideration of the means to respond to these uncertainties in terms of knowledges and skills already possessed, in terms of the context in which one finds oneself, and in terms of the ends considered to be significant, acting (doing) on one or the other of these means, and assessing the outcomes of one's doings, all emerge and reemerge during the development of an exhibition.

Instead of mindlessness governing the school curriculum, a very real sense of responsibility for shaping one's own growth emerges within the framework of a vision of participation, of democratic decision-making, which should enable the student to desire to engage in the serious work connected with the pursuit of the goals she has chosen.
Clearly the student is going to be perceived as the one engaged in serious work, in serious learning, learning which is alive to the student, which is related to that students lived experiences, which enables the student to learn in a way suited to his or her style of learning, drawing heavily from the functional theory of learning which emerged from the work of Dewey. Functional theory was almost totally suppressed because of the stress by the behaviorists on the construction of a psychological science of learning based on the positivist model of the physical sciences. Behaviorist theory was perfectly compatible with the technocratic perspective, but it practically eliminated the functional relationship between ends and means which emerges when the student is actively involved in decision-making about the goals to be pursued in her education.

Conclusion

In this paper I have attempted in broad outline, and with the help of several visual, three-dimensional forms, to contrast the dominant technocratic theory of secondary schooling with that of the theory of schooling which has emerged from the ESM. In line with the theory behind the ESM, this paper has made the claim that the 'exhibition-centered' vision of secondary education which the ESM entails has the potential for changing the purposes of our public schools, and the means by which our schools determine the quality of learning which their students have acquired in the pursuit of these ends. By providing secondary age youth with a public opportunity to demonstrate the integrated meanings, skills and values they have acquired from the pursuit of ends which they have chosen to guide their educational development, both the student and the larger public to whom the school is accountable have an opportunity to become aware of the value and the usefulness of the intellectual, moral, aesthetic and citizenship capacities which students have developed. This way of relating the ends and means of schooling represents a vision of how participatory democracy can and ought to function. Based on ends which the learners themselves have chosen, it is grounded in a humanistic view of students, expecting them to take serious responsibility for their own growth and development in the pursuit of their goals. Such an effort at bringing about the mastery of what is learned will be both more messy and more authentic. For teachers, schools and communities who feel increasingly uncomfortable with conventional standardized tests, however, this effort can bring about significant improvement in the purposes for which public schools exist.
If, for instance, the purpose of our public schools is to have students acquire relevant understandings and skills, excellent habits of mind and character, while at the same time developing dispositions to work seriously in the pursuit of goals and to acquire dispositions of responsibility as citizens in our society, then one can only conclude that the ESM, and the CES which it has generated, in tandem with what was pursued during the Eight-year Study, and earlier during the work by Dewey in his Laboratory School, represents an integrated theory of schooling which has the potential for radically changing the functional, technocratic theory which has, throughout the twentieth century, hegemonized the thinking of most people, professional educators and the lay public alike, about the purposes which our schools ought to serve. Indeed, it is just possible that we could witness in the foreseeable future and effort to achieve more effective schooling by reinventing some schools in which the purposes of their entire curriculum would evolve from the goals entailed by the exit exhibitions generated by their students.
READING NOTES


14. Silberman, Charles E. (1970). "What they want to produce, not what we want to become": Reforming the high school." In: *Crisis in the classroom: The remaking of American education*. New York: Random House. Chapter 8, 323-369. Another thinker who has stressed much the same perspective about the habit of using the mind well is Paul H. Hirst. His "Liberal Education and the Nature of Knowledge," in *Philosophical Analysis and Education*, edited by Reginald D. Archambault, pp. 113-38, stresses that the basic (though not the only) purpose of education is to develop the mind.


17. Ibid., 143.


