When discussing what schools should teach, questions of both content and process must be addressed. Although many observers believe that a fixed content should be learned, it is impossible to separate content and process. In the process of education, experiences build on each other. This fact should cause educators to question the continuities between the experience and content of preschools and primary schools, middle schools and high schools, which currently tend to be either nonexistent or unknown. An understanding about continuities helps educators understand what is lost when curriculum is viewed narrowly, in terms of isolated, disconnected studies. Schools must also be more attentive to students' inclinations, strengths, and values—what they truly care about. An education that builds bridges, that expands a child's potential for independence, is an empowering education. Another way to conceptualize continuities and bridges is to consider that the cultivation of imagination should be the chief aim in education. A school committed to supporting "the having of wonderful ideas" is establishing for itself the goal of getting all young people as close as possible to their upper limits of learning potentialities. If children are to be educated rather than merely schooled, purposes have to be given further attention. Purposes are the dimension of the discourse about content and process, what students should know, understand, and believe possible, that is missing. (MM)
What Should Schools Teach?
Issues of Process and Content

by
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Carnegie Foundation for the Advancement of Teaching Princeton, NJ

It is a pleasure to be present for this Partners in Education conference organized around the question: What Should Schools Teach? It could as easily, of course, have focused on What Should Students Learn? even though these two questions are not absolutely reflexive.

While concealed a bit, the conference is also about longstanding classic questions surrounding content and process. This is, after all, the year of Allan Bloom and E. D. Hirsch who argue that content—which they tend to equate with subject matter, albeit organized around Eurocentered themes—has been sacrificed on John Dewey's altar of Educational Process—which they tend to describe as those elements of education that are soft sounding, not easily measured, and about which precision of definition is often lacking.

What does it mean, for example, to say that we are teaching students how to learn—or that we are helping young people to appreciate nature, or love to read and write, or understand the power of cooperation, or

see themselves as powerful and necessary participants in the ongoing construction and reconstruction of the world in which they live?

Learning about the five causes of the American Civil War, and of course its dates, being able to name the protagonist in MacBeth, knowing the title of two Thomas Hardy novels, knowing the definitions of such words as windfall, zeitgeist, vis-a-vis, and utilitarianism, or a host of other facts appears far less ambiguous. And such certainty leads easily to checking up on and writing about what 17 year olds don't know, though I am always more curious about what 17 year olds know—and what 17 year olds are able or are inclined to want to know in the future because of what they now know at age 17.

Even as I say all of this, however, I must still acknowledge that the terrain is more subtle and complex than I've made it. Trying to simplify complex issues—and I believe all facets of teaching and learning are complex, not easily turned into generalizations—doesn't usually lead to making an understanding of them easier. Yet, much of the contemporary discussion around content and process, what should be taught and learned, has been simplified almost to the point of incomprehension—at least to those closest to students in the schools.

Teachers in schools have long understood that the path to literacy is interest and personal experience; to Romeo and Juliet one's own biography of love; to an understanding of American History, one's own life and family, one's own community; to science, walks in the woods, observations of the moon, the flowers and the ponds; to an appreciation of art, one's own painting, gallery observations, and thought.

*Presentation at annual Princeton University Partners in Education Conference (for area elementary and secondary teachers).
Any discussion about knowledge or understanding is, of course, also value laden, whether one assumes a separation of content or process or not. To make my own position clear, I don't view content and process as dualisms, separate parts of a teaching and learning formulation. They are mutual, reciprocal, integral, and inseparable constructs. One can't really learn about nothing; love nothing; and reflect on nothing. Learning, loving, and reflecting all demand an object of context and content.

How should we think about content? We have many observers who believe there is a fixed content to be learned, specific books to be read, events to know, facts to hold. And such beliefs are put forth without modesty—or much understanding that genuine doubts are possible, that the paths to powerful learning in all fields might be multiple, not unitary. In regard to what knowledge is most in need of knowing, Wayne Booth, at the University of Chicago reminds us, "That which seems trivial in one person's head may turn out to be earth shattering in another's." Knowledge, whatever it is, can't stand apart from individual persons and their experience within particular communities. Personal and intentional qualities are omnipresent.

Because I find it difficult to discuss the content of schooling outside a serious focus on purposes, I would like to use my time to reflect on purposes as they apply to our work in schools. Needless to say, powerful purposes, consciously pursued, lead to powerful, though possibly diverse content. We tend to forget that. As a result, we often focus on making certain students can list the dates of the American Civil War instead of being concerned that they understand deeply slavery and the ongoing struggle for full equality—the black experience in America; assuring that students can list an exam the causes of the first world war instead of understanding how aimless the war was—its unnecessary aspects, its contradictions, and its effect on the remainder of the twentieth century, on how individual students live their lives even today.

I also think of how circumstances often alter a curriculum—especially in settings where powerful purposes are consciously valued. At an elementary school in Revere, Massachusetts, the principal of an all-white, fully English speaking school learned during February three years ago that a large number of Cambodian children would be in the school in the fall. When the one hundred Cambodian children arrived, the school was ready. They were greeted with outstretched hands of welcome and friendship.

The principal and teachers made a decision that it was critical for everyone in the school—children, teachers, custodians, secretaries, lunch workers—to know who these Cambodian children were, where they had come from, and why they were coming to Revere. Getting ready for the Cambodian children became the curriculum for the next four months—the reading, social studies, language arts, science, and arts program. It was real and, as a result, it was vital. Those in the school community learned how to speak to the Cambodian children and also gained considerable knowledge about their cultural patterns as well as their suffering. As part of their preparation, those in the school learned about prejudice and the harm that prejudice brings to persons who are different. They also learned about how prejudice disrupts communities—whether schools
or neighborhoods. Their learning had meaning and it made a visible difference.

And now back to purposes more generally.

We speak often about children and young people in our society "as the future." What do we mean by that? Do we imply mostly preservation or change? Assuring that they can live in the world as it is or assuring the skills, knowledge, and dispositions to change the world, to construct new possibilities? How we think about that will say a lot about what we do in our schools, the ideas we explore, the books we read, the experiences we provide.

In relation to this, Jean Piaget argued that the principal goal of education in the schools should be the creation of

men and women who are capable of doing new things, not simply repeating what other generations have done—men and women who are creative, inventive and discoverers...who can be critical, can verify, and not accept everything they are offered.

I ask often in this regard, what are our young people learning about democracy and social justice? About how to change the world around them?

If we aren't clear about such questions, we tend to fill our schools with contradictions—which tend over time to foster cynicism and limited support.

I'll offer a few thoughts to fill this out some. A couple of years ago, at a Peace Studies symposium held in Grand Forks, North Dakota, a Canadian teacher, who lived sixteen miles from a Minuteman III missile site, presented *A Prairie Puzzle*, his study of nuclear arms in North Dakota. He told his story with great personal intensity. It was followed by expressions of passionate dismay, principally by 18 and 19 year olds, about how little they knew about this puzzle. One young woman spoke of living her entire life in North Dakota, having spent 12 years in the schools, and then asked why she hadn't learned more about the missile fields, the kinds of weapons that existed, the cost of these weapons, importantly, their potential as targets. In not making the nuclear weapons in North Dakota or in the country or in the world a matter of serious study in the schools these students attended, what kinds of values were being expressed? Were students being prepared for active citizenship?

I surveyed high school seniors that same year about their understandings of nuclear weapons. On a 1-10 scale with 10 signifying the highest level of understanding no response was above four—most were in the 2-3 range. When I asked, "What should your understanding be?" everyone checked 8, 9, or 10. In response to the question, "Is it possible for you to know as much as the President of the United States?" no response was above 5. In response to whether the school should offer a strong unit on nuclear arms issues, every response was above 8. With regard to whether individuals can influence public policy, no one responded above 3. I also asked how likely it would be for them to attend a public hearing on Nuclear War Crisis Relocation. Almost all responded, "Not at all likely." Most had never attended a public hearing on any subject and didn't really know how to participate in such an event.

Robert Bellah and his associates in the popular *Habits of the*
Heart suggest that adults are having increasing difficulty explaining their commitments to their children. But children and young people need to know that their parents and teachers have a strong set of beliefs—that they have important values. Those beliefs and values come through in many ways. What kinds of values do we present as teachers, as persons? How do we express caring deeply about the students? and the society? How active are we in our communities? How do we act out our citizenship? Do we show our love for learning, for literature, for books? Do we display our ongoing inquisitiveness about the world—how it works and why it works in those ways? Do we ask powerful questions? Are we critical? Do we seek alternative explanations? Do we ask often about events being examined; what do they mean? and why should we care?

I'll share quickly several additional philosophical and practice oriented formulations that might be instructive.

Friedrich Froebel, a theoretical and practical giant in the early childhood field, used the garden metaphor extensively in his writing about children—that sense of unfolding, blooming, and flowering. While likely overdone since his day, it is, nonetheless, a metaphor worth reflecting more upon across all ages. It certainly expresses many constructive views about learning, in as well as outside of schools.

Experiences do, as Froebel suggested, build on each other; the more powerful they are, the larger their potential. While each stage of life, each experience, is important in its own right, each is also integrally connected to what precedes and follows it. Such an understanding should cause us to ask always about the continuities between the experience and content of preschools and primary schools, middle schools and high schools which currently tend to be either nonexistent or unknown, and the importance of returning at each level of schooling to earlier themes, even texts, as well as not closing off ideas and areas of knowledge being explored beyond a particular level. Is it possible to go to the Metropolitan Museum too many times? To the Smithsonian too many times? I hear primary children everywhere told, "You don't want to read that book again," or "You will learn about that when you get to the fifth grade." Such refrains are replayed in the high schools. "You were supposed to have learned that in the eighth grade" . . . "You'll learn about that when you get to college."

Further, such understandings about continuities should help us understand what we lose, in fact close off, when we consider curriculum narrowly and in terms of isolated, disconnected studies. Separating learning, as we tend to do, typically leads to less understanding, not more. Alfred North Whitehead wrote in this regard, "in separation all meaning evaporates." Can we possibly get intensity with seven separate, generally unrelated, non-thematic courses a day? When we feel we must get through everything so quickly?

Also embedded within Froebel's metaphor is an important sense of optimism—the belief in a large number of possibilities. A garden can, through careful nurturing and provisioning, reach almost limitless brilliance. Our expectations of intentional settings, such as schools, aimed at supporting the growth of children and young people must have the same limitless qualities. Can the brilliance be reached,
however, when we track students by perceptions of ability? When we label students and provide for them more limited experience and challenge? When we limit the opportunities for collective thought and cooperative learning—which are far more possible in settings committed to heterogeneity?

In keeping with what I see as a necessary belief in the need to base a school on a student's genuine learning needs and interests, I want to echo Herbert Spencer who called for the development of "active inquirers." If we saw this as a major goal, much that exists—the workbooks and textbooks, the predetermined curriculum, the reductionism, the teaching to tests—would, I believe, begin to fade.

Taking Spencer's formulation seriously is also to be more attentive to students' inclinations, their strengths, and what they value—what they truly care about. To do otherwise, Patricia Carini suggests, is "to rest content with the appearance of knowledge and forfeit all pretense of educating responsible thinkers, capable of forming opinions and taking actions."

What is the source of our most deeply held understandings? In what ways did our personal interest in a subject, a topic, an activity lead us to further learning? Is it really different for our students? Do we recognize this quality in them?

Using Martin Heidegger's formulation of teaching as meaning "to let learn," Carini writes:

"Teaching that is teaching to let learn enlightens, opens up, and increases the meaning and value of the learner's experience, thought, and ideas. The emphasis in this teaching is on knowledge of what the learner cares about and how that caring can be supported and extended through ideas, but also through access to the media and the processes through which the learner's interests can find additional shape and form."

To a degree this is also Mortimer Adler's point when he writes: "All genuine learning arises from the activity of the learner's own mind. . . . When the activities performed by teachers render students passive, [they] cease to be learners, memorizers, perhaps, but not learners." He, like Carini and Spencer, sees students as active agents, inventors of knowledge.

Alfred North Whitehead also viewed the personal ownership of knowledge as important. But he believed that schools tended to make such internalization difficult, if not impossible, because of their domination by "inert ideas," those small pieces of disconnected knowledge that don't serve as bridges to extended learning. An education that builds bridges, that makes fuller learning more possible, that expands a child or young person's potential for independence is, in today's terms, an "empowering education." That is, I believe, a goal worth striving for. It is also an education that is possible.

In relation to "inert ideas," Whitehead wrote in his classic Aims of Education:

"The result of teaching small parts of large numbers of subjects is the passive reception of disconnected ideas, not illumined with any spark of vitality. Let the main ideas which are introduced into a child's education be few and important, and let them be thrown into every combination possible. The child should make them his own, and should understand their
application here and now in the circumstances of his actual life.

To pursue such thoughts leads inevitably to the issue of breadth and depth. Whitehead argues it is better to pursue a few subjects in great depth, trusting that such learning provides natural bridges to other learning. Ted Sizer's Coalition of Essential Schools, as you know, advocates Teaching Less more thoroughly. And David Hawkins, a noted philosopher of science, speaks of the need to uncover a subject rather than covering a subject and he believes the distinction to be large.

Vincent Rogers, a good friend at the University of Connecticut, has been examining the coverage issue in several schools. He shared an account of a middle school science teacher who took great pride in the "success" of his students. They averaged 85 percent on the school's criterion referenced science testing program--tests that were taken weekly. He especially praised his class for how well they had done on the electricity unit. Three weeks after the unit there was an electrical storm that caused the school to close. Asking his students to relate their learning to the storm, he was surprised that they could not make connections between their earlier study and these immediate events. In his discouragement, he asked, "Just what are my kids really learning here?" He decided that, in spite of the fact that they did extremely well on each week's performance test, "they weren't learning very much."

John Dewey described the curriculum of nine year olds in the Dewey School of 1898--the subject matter of the entire year--as worldwide migrations. He writes:

(By following) a few of the great migrations and explorations that opened up the continents of the world, the children built up an idea of the world as a whole, both racially and geographically. In their imaginary travels, they acquired some knowledge of the place of the earth in the universe and its larger physical forces and of the means that man has used to meet or employ them. Then they settled down to the study of a specific people in a specific way and learned how, through the agency of individuals, groups of persons have subdued the untoward elements of their physical environments and have utilized the favorable ones.

Dewey noted further in relation to these nine year olds:

The need to formulate the meaning of their activities, either in conversation or in an oral or written report, in recipe or rule, ... in mathematics or in the laboratory, in verse for songs, or in dramatic form for formal plays, arose for the most part out of the actual situation (which emerged in) the classrooms or the imagined (situations) of the historical times they were reliving.

It is no wonder that the experiences of those who went through the Dewey school were remembered so vividly and were judged to be so instructive and powerful.

May Sarton, in I Knew a Phoenix, also gives us an interesting glimpse of a curriculum conceptualized thematically. She suggests that her sedentary adult life may well stem from a school environment in Cambridge, Massachusetts, in the 1920s where she traveled for months along the dusty roads of Athens, spent many weeks climbing the Himalayas and painting the great landscapes of this world--using up so much of her
energy, her whole being, that she had to sic and rest in adulthood.

Wouldn't it be wonderful if all of our students had such intense remembrances of their schooling?

Another way to conceptualize continuities and bridges, keeping learning possibilities open, is to consider, as philosopher Mary Warnock does, that: "The cultivation of imagination . . . should be our chief aim in education."

Marvin Lazerson and his colleagues in An Education of Value, the report of the National Academy of Education, remind us that imagination informs all human activity and further that it is tied closely to knowledge and skills. They write: "Imagination infuses the best science as well as the best literature . . . it makes it possible to see the world differently, to see possibilities and to promote a feeling for attentiveness."

Imagination is in essence a perspective, "a way of seeing connections and meanings beyond the routine and the commonplace." It demands a curriculum that truly challenges young people, that is laden with questions and multiple possibilities for entry, and for active learning.

To give consideration to imagination also calls upon us to think again about questions of certainty and uncertainty with regard to knowledge, the content of the classroom. Jay Featherstone suggests that the metaphor of Mark Twain's Life on the Mississippi, with the river always shifting, needing to be understood with a high degree of tentativeness, might be helpful. There is a virtue in keeping ideas alive, keeping their complexity fully in view.

In this regard, Tolstoy noted on the basis of his work with peasant children: "To the teacher, the simplest and most general appears the easiest, whereas for a pupil only the complex and the living appears easy--only that which demands interpretation and provokes thought is easy."

He, like Featherstone's understanding of Mark Twain's education, didn't view ambiguity and uncertainty as something to remedy, but as the soil for deep learning.

Eleanor Duckworth, a former Piaget collaborator and Harvard Cognitive Psychologist, provides us with yet another way to think about purposes. She equates the essence of intellectual development with the "having of wonderful ideas," the title of her recent book--those occasions when a student, on his or her own, comes to understand a relationship, or how something works. Duckworth reminds us:

There is no difference between wonderful ideas which many people have already had and wonderful ideas which nobody has happened on before. . . . The nature of creative intellectual acts remains the same whether it is an infant who for the first time makes a connection between seeing things and reaching for them . . . or an astronomer who develops a new theory of the creation of the universe. In each case, it is a matter of making new connections between things already mastered.

A school committed to supporting "The having of wonderful ideas" is establishing for itself the goal of getting all young people as close as possible to their upper limits of learning potentialities. As it is, most don't come very close to that upper limit. The expectations aren't high enough, the environments
for learning are too sparse, the questions asked are too small, and the learning resources too limited. Inevitably, as well, powerful purposes have been absent.

Possibly this is enough to establish a base for the panel discussion to follow and the workshops scheduled for next week.

If we are to educate children and young people rather than merely school them, purposes have to be given further attention. Purposes are the dimension of the discourse about content and process, what students should know, understand, and believe possible, that is missing. I wanted in this opening statement to revive it some.

Vito Perrone was for 18 years Dean of the Center for Teaching and Learning. He is currently on the faculty of Harvard University and Senior Fellow, Carnegie Foundation for the Advancement of Teaching.
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Center for Teaching and Learning
Box 8158
University of North Dakota
Grand Forks, ND 58202

TO: