

Knowledge Building and Idea-Centered Education: A Combination for the Knowledge Age

The Great Divide: Belief Mode vs. Design Mode

The main difference between education's time-honoured way of dealing with knowledge and ideas and the Knowledge Age way is the difference between *belief mode* and *design mode*. The difference shows up most immediately in the kinds of questions that are asked in the two modes:

Belief Mode Questions

Is it true?

What's the evidence?

What are the pros and cons?

Design Mode Questions

What is this idea good for?

What does it do and fail to do?

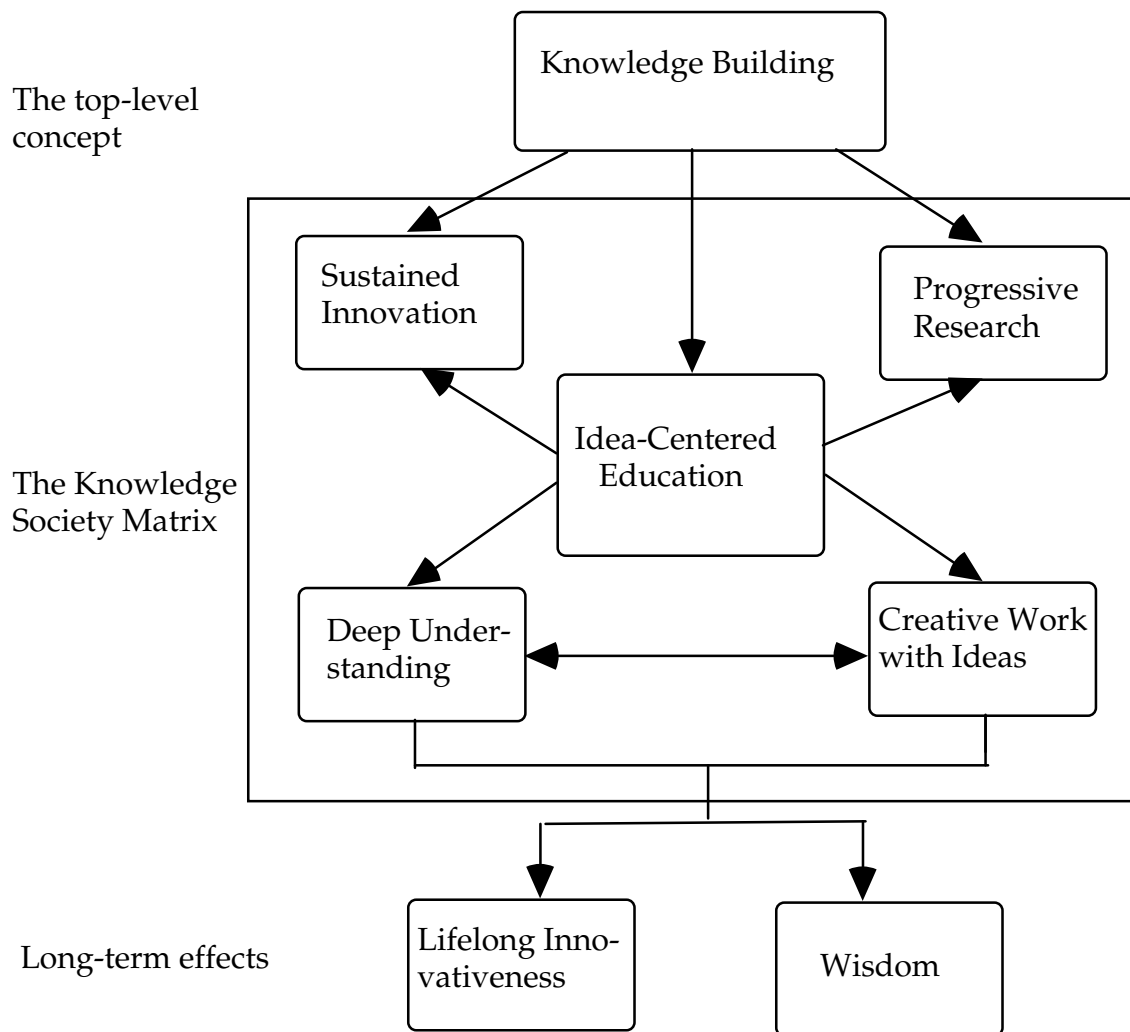
How could it be improved?

Academic education is still, as in the days of Plato and Aristotle, conducted almost exclusively in belief mode. Even where "hands-on" experimenting and constructing have gained a place in the curriculum, they are used as ways of verifying or demonstrating beliefs. Argumentation remains the intellectual high point of formal education.

Knowledge Age education and training have to give knowledge and ideas a more central, not a less central place than they have in traditional education; what needs to change is the mode. The imbalance that tips formal education so extremely toward belief mode has to change.

Creating an education that deals with ideas in design mode requires a leap beyond the conceptual framework within which presentday educational planning is carried out. The diagram below represents such a new framework, one derived from the over-arching concept of knowledge building. Consistent with Peter Drucker and other management theorists, it places education at the center of the conceptual network that we call the "Knowledge Society Matrix." But it is not just any kind of education that can occupy this position. It is "idea-centered" education, as derived from knowledge building.

Key Concepts and How They are Related



Knowledge Building

Knowledge building, the top-level concept, applies to all kinds of creative knowledge work. It is by no means limited to education. A synonym that appears often in the business literature is “knowledge creation.” *Knowledge building means the deliberate creation and improvement of knowledge that has social value*—theories, designs, explanations, interpretations, useful analogies, problem formulations, histories, and so on.

Sustained Innovation

Popular notions of creativity tend to glorify the isolated flash of inspiration. But deliberate innovation—of the kind Edison pioneered and that Knowledge Age organizations now pursue—requires creative input from a number of people over an extended course of development and improvement .

Progressive Research

Progressive research, of the kind carried out in laboratories and research centers, is equivalent to sustained innovation: It is sustained innovation applied to theories and other intellectual products rather than to goods and services. This is quite a different conception of research from that usually conveyed in school science, which treats research as a matter of testing predictions and accumulating evidence. Those play a role, of course, but they represent the belief-mode aspect of science, whereas scientific theories and ideas themselves come about through work in design mode.

Idea-Centered Education

“Idea-centered” means just what it says: Ideas do not remain in the background but occupy center-stage. They are what the teaching, inquiry, discussion, and creative work focus on. This is in contrast to educational approaches in which ideas may lie in the background but what occupy the attention of the students are activities, tasks, or facts and skills to be mastered. There are belief-mode approaches to idea-centered education, but knowledge building brings with it a design-mode approach. This means that the students’ own ideas become central, become the things students work to create, evaluate, and improve.

Sustained innovation, progressive research, and idea-centered education are all basically the same knowledge building process, carried out in different contexts. Thus the skills and habits of mind acquired through classroom knowledge building are essentially the same skills and habits of mind that figure in workplace contexts of creative knowledge work.

Deep Understanding

The thrust of idea-centered education should be toward continuing to go deeper (even after the curriculum unit has ended). Deep understanding is particularly important in the Knowledge Age because (1) the deeper the knowledge the less quickly it becomes obsolete; (2) depth of understanding is one of the main things that distinguishes experts from novices in knowledge-rich fields; and (3) deeper understanding makes it easier to grasp relevant new ideas and techniques. Thus it is an essential for effective lifelong learning.

Creative Work with Ideas

It isn’t enough to produce ideas; you have to enjoy and be devoted to digging in and actually working to understand, find uses for, and improve ideas. A knowledge building approach to idea-centered education means that students are continually engaged in creative work with ideas.

Lifelong Innovativeness

Knowledge building realized in the form of idea-centered education turns over a much higher level of agency to students than do even the most “child-centered” of earlier approaches. This should help to develop in students enough command of their own idea development that they can continue this development after they leave formal education.

Wisdom

Wisdom entails making local judgments that take account of larger, longer-range, and more humane considerations. Knowledge building in educational contexts should encourage such judgement as a guiding principle in idea improvement.