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A Development Agenda

CREATIVE CURRICULUM DEVELOPMENT AND PRACTICE

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My aim in this article is to describe my idealized vision of what creative curriculum development entails. I also want to share some value premises that I hold about various aspects of education. My views about what is ideal are built on my conception of what schools are for and what education as a process should achieve.

I start with the premise that the process of education is intended to free the mind from certainty, to liberate children and adolescents so that they can consider options not entertained by their parents. Indeed, the purpose of education in the broadest sense, and particularly given the characteristics of our world today, is to succeed at the paradoxical activity of helping children become what we are not.

The process of education is also one of developing the various forms of literacy that will enable the young to read the images, texts, and performances that their culture and other cultures have to offer. This literacy requires knowing how to recover meaning in the social forms we call the arts, the humanities, and the sciences. The process of education should develop the various modes of cognition that human beings can potentially exercise. Learning to think in text and speech are only two. Learning to think visually, to engage in musical cognition, to be able to think in metaphor, and to see and understand the world in poetic images are others.[1] Without creating a laundry list, I believe education should be concerned with developing the mind, multiple forms of literacy, and the inclination and ability to think critically and speculatively on the possibilities of tomorrow.

As a corollary, educational practice as it occurs in schools should aim at developing the student's productive idiosyncracy. In fascist states, schools are

[1]Elliot W. Eisner, *Cognition and Curriculum. A Basis for Deciding What to Teach* (New York. Longman, 1982), Howard Gamer, *Frames of Mind* (New York Basic Books, 1985), Nelson Goodman, *Ways of World Making* (Indianapolis, IN. Hackett, 1976)

designed to shape students into true believers. Dogmatists believe that only one right way exists. In democratic nations, heterogeneity of outcome is, or should be, considered a virtue. Although in certain skills—spelling—social conventions are so strong that idiosyncracy of outcome is a vice, such outcomes are at best the tactical, not the strategic, aims of education. They are instrumentalities, not long-term ends.

If schools are to prize productive idiosyncracy for students, then schools must provide teachers with conditions that foster in them those same qualities Teachers unnecessarily constrained by routines or rules they have no control over are least likely to provide educationally liberating conditions for their students. Teachers who themselves cannot speculate and take risks are unlikely to make speculation and risk taking possible for their students.

Achieving these aims is only in part curricular. It is also systemic in character. Schools, like other complex organizations, are organisms that try to maintain their stability. To change schools significantly, we need to change the conditions in which they function. We need to take an ecological approach to educational improvement. Piecemeal efforts at school reform are usually neutralized over time; experienced teachers ride out innovation, and stable structural factors such as forms of school organization and the relentless press of examination systems eventually triumph over our grandest aspirations.

Having said that change requires attention to systemic institutional factors, I want now to focus on the curriculum. But do not dismiss what I have had to say about the infrastructure of schools or discount the forces that stabilize them. For too long, we have lived with the illusion that important change in schools can be made by doing *this* or *that*, not recognizing that the propensity for stability of practice is deeply ingrained in the structure of the system itself.

But let us turn to curriculum. It is useful to distinguish between the *intended* and the *operational* curriculum.[2] The intended curriculum results in plans and materials and textbooks and worksheets that are prepared, often outside of the school site, to control the focus and content of teaching. The intended curriculum is written, it has aims and objectives; it usually prescribes or suggests a sequence of activities and is often subject to external examination. It is the formal and public course study for which students, teachers, and schools, in one way or another, are held accountable.

The operational curriculum is the result of how teachers mediate the intended curriculum. No curriculum teaches itself, and how teachers interpret what they receive is crucial to the kind of education students receive and the kind of growth teachers have an opportunity to experience.

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[2]Elliot W Eisner, *The Educational Imagination. On the Design and Evaluation of School Programs*, 2nd ed (New York· Macmillan, 1985).

THE MEDIATION OF THE INTENDED CURRICULUM

Creative curriculum development occurs, in the main, in the interaction between teacher and curriculum materials. The major function of creative curriculum materials is to amplify the teacher's skills, not to constrain them.

As a way of thinking about the business of interpretation and amplification, consider the relationship of the symphony conductor to the teacher.[3] There are many similarities. Can a conductor of a symphony who has been given a detailed score function creatively? I don't think it takes too much reflection to recognize that conductors not only can but do. A score is a set of directions subject to the conductor's interpretation. How long notes are held, the dynamics the conductor directs the symphony to create, the tempo used in particular symphonic sections, the balance between sections of the orchestra, the color and timbre created, and the general mood within the several movements of the symphony are all subject to the conductor's control. The composer provides a score, the conductor amplifies the material received and in the process puts his or her own imprint on the work. Making the judgments necessary to create a musically important rendition of a score requires a musical imagination, the ability to hear in one's auditory memory what the music might become, and an ear to know if and when it has been attained. The conductor is the first listener.

Consider further the process through which such performances are achieved. What we hear when we go to a concert is the finished product, but this product is the result of musical conversations between the conductor and members of the orchestra. Those conversations take place in rehearsals. The conductor's ear, his or her image of what the music is to be, and how the music is balanced are all the result of those conversations. When the work is done, the conductor has conferred on the score his or her own musical signature, if it is attractive and significant, the conductor creates a reputation known worldwide.

Now consider the similarities between the conductor's task and the teacher's work. The teacher also has a score. Of course, it is not a score having the prescriptive syntactical structure of musical notation, the teacher works with a looser and less specific set of directions and constraints. Yet, like the conductor, the teacher has something to play with—the intended curriculum. Clearly, these scores constitute similarities. But significant distinctions apply.

Within the constraints of the intended curriculum, the teacher interprets, but in the classroom the conversation is never ending. The finished perfor-

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[3]Much of what follows was developed in conversation under some lovely shade trees while drinking beer and eating hamburgers with my good friend and one of America's leading students of teaching, Professor Chris Clark of Michigan State University. Indeed, when we talked, I told him that he would get more than a footnote, this is something of a joint paper, though I assume responsibility for its shortcomings.

mance in the concert hall has few analogies in the school. In the classroom, performance is always uneven among children; their individual scores are never identical; and unpredictability, not predictability, is the norm.

But another difference is fundamental to the teacher's work and clearly distinguishes the teacher's aims from the conductor's. In the concert hall, the image of musical virtue is in the conductor's head. The conductor decides how the musicians are to perform, and that image means ultimately that all musicians are to perform as the conductor directs.[4] Like a chariot driver who must keep the most spirited steeds in check, the conductor seeks a harmonious uniformity in performance. In the end, each musician has the same musical ideal, even when the sections played differ.

In the classroom, the teacher exploits the interests and aptitudes of individual students and gives them opportunities to go at their own pace, as well as to pursue different ends individually. The good teacher, like the good school, increases rather than suppresses individual differences.

The operational curriculum must function, of course, within appropriate constraints. In some cultures, the constraints are greater than in others. Even within the same country, different sections often embrace different educational values and have different expectations for their schools. Baden-Wurtenburg and Hessen, for example, are not alike in their educational orientations, even though they are both members of the Federal Republic of Germany. As we move further and further into orthodoxy, single correct views held by all are regarded as the appropriate outcomes of schooling. Fundamentalists exemplify this attitude. In American fundamentalist Christian schools, according to Peshkin, virtually all aspects of the school—from the tests to the music—reflect the fundamentalist point of view; all personnel employed—from the principal to the caretaker—must be born-again Christians.[5] No ambiguity about educational ends exists, and surprise in outcome is the last thing desired. The educational aim is not to free the mind from certainty but to make it certain.

When we regard curriculum practice in the context of the classroom as an effort to cultivate productive idiosyncracy, and when it succeeds, it creates outcomes that differ from student to student. These differences, in turn, create three problems. First, meaningfully comparing students with each other becomes virtually impossible. Those who take different routes arrive at different places. Comparability among students is not a meaningful aspiration Second, when comparability is compromised, the task of knowing where students are in a statistical distribution becomes difficult. As long as the same yardstick is being used, comparisons can be meaningful. When yardsticks differ because

[4]But even here, musicians are not totally directed by the conductor; they interpret the conductor's directions and provide their own signature to their own performance

[5]Alan Peshkin, *God's Choice* (Chicago. University of Chicago Press, 1986).

of what students study or how they display what they have learned, comparing children with each other makes little sense. This difficulty creates further uncertainty. Knowing where we are in a distribution might not always be pleasant, but it is not ambiguous. Third, when performances do not lend themselves to procedurally objective assessment methods, we must exercise judgment.[6] Judgment is labor-intensive. It rests on rational, not mechanical, grounds, and it can subject the judge to accusations of incompetence, bias, or worse. The kind of detached precision that we subject the optically scored multiple-choice response form to has no counterpart when the material created by the student requires a connoisseur rather than an accountant.

These forms of assessment become a part of the teacher's responsibility in the model of creative curriculum practice I have described. We cannot separate the valuative function from the pedagogical function because the cues a teacher uses for teaching depend on appraising students' responses to questions and tasks encountered. In this sense, this view significantly complicates rather than simplifies the teacher's task.

Is it realistic to expect teachers to be able to cope with these tasks? What should educational policy be in nations where the class size is 45 to 50? What should be done in nations where teacher training ends after two years of study at age 18? How should this larger conception of education be viewed in cultures with strong religious convictions that are at odds with what I have put forward as educational aims?

THE INFLUENCE OF CONTEXT AND CURRICULUM MATERIALS

In one sense, the need to interpret and mediate a program is an inescapable aspect of any teacher's work, even those teaching in schools where prescriptions for content, objectives, and method are great. No one can give students a script to follow, therefore, unpredictability is an inherent feature of all teaching, perhaps even more so in large classes than small ones. At the same time, my conception of education is not universal, and although I might philosophically reject approaches to educational practice that run counter to my own educational values, I would not want to foreclose the rights of others, even if I could, to make other choices. One of my values pertains to the value of pluralism, even though I myself might not choose to follow some options available in a pluralistic array of educational orientations. But even when the choices that others make are similar to my own, in some circumstances having expectations that far exceed what teachers are capable of doing might not be useful. If teachers are relatively untrained, or inexperienced, or if there is an

[6]Elliot W. Eisner, *The Enlightened Eye Qualitative Inquiry and the Enhancement of Educational Practice* (New York: Macmillan, 1991).

absence of support services in the school, expecting them to deal with choices they are clearly unprepared to make might be counterproductive. Teachers who are ignorant, for example, of the fine arts are unlikely to give their students a curriculum worth learning if it is up to them to decide what should be taught in this domain.

The implications of taking into account context conditions in deciding what is right in particular circumstances goes to an old core idea in teaching: Start where the student is. In more sophisticated terms, Vygotsky's *zone of proximal development* is as relevant a consideration in the design of curriculum materials for teachers as it is for those students are to use.[7] Ask the central question when the educational values embraced in the system are congruent with the ones I have espoused. What does the teacher need to move ahead? Some teachers, working in some circumstances, will need much guidance and direction. If so, curriculum materials should provide it. Other teachers will need far less, they will be able to handle much more complexity, and here too curriculum materials should provide it. When I drive my car in the Bay Area of California, I need no map to get around. I know the territory, and I can concentrate on the scenery that surrounds me, not on the signs that tell me where I am. I know where I am. In Holland, I need road signs. My dependency on them imposes a cost, I can pay far less attention to the countryside than I would be able to if I knew the terrain better, but I'd rather know where I am than get lost—at least most of the time.

Good curriculum materials provide resources that amplify the teacher's ability, given the circumstances in which he or she works. Amplification contains the idea that good curriculum development not only teaches students, it helps the teacher learn as well.

During the past year, Decker Walker, a colleague of mine at Stanford, and I have been doing a study of a curriculum implementation of what is called *discipline-based art education* in four school districts in three states: Provo, Utah, Robbinsdale, Minnesota, and Eugene and Portland, Oregon.[8] The J Paul Getty Center for Education in the Arts has provided funds for a three-year period to enable these districts to bring this approach to teaching art to their students. Among some unanticipated benefits of the program is the feeling among teachers that they too are learning much about art because of how the program is designed. Besides the content of art, they are learning how art history, art criticism, and aesthetics relate to the activities of art making, something that they had rarely thought about before. These teachers are also the beneficiaries of a curriculum designed for students, and as a result, they

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[7]Lev Vygotsky, *Thought and Language* (Cambridge. Massachusetts Institute of Technology Press, 1962).

[8]Elliot W. Eisner and Decker Walker, *Report to the Getty Center for Education in the Arts on the Implementation of DBAE in Four School Districts* (Stanford, CA Stanford University School of Education, 1989)

are gradually becoming independent of the curriculum they are learning from. Good curriculum materials both emancipate and educate teachers.

Most of what I have said so far has focused on the operational curriculum, what it is that teachers do in the process of mediating curriculum materials. Good intended curriculums take into account teachers' working circumstances and their practical pedagogical needs. I have not, however, discussed some important features of intended curriculums per se.

DESIRABLE FEATURES OF INTENDED CURRICULUMS

Creative curriculum development, the development of materials that teachers work with, should enable teachers to provide students with activities that meet five criteria.

- The activities the materials suggest should teach ideas, skills, or forms of perception that are educationally important.
- The suggested activities should be intellectually challenging to students and stimulate higher order thinking.
- The content that students study should be presented through various forms of representation and should not be restricted to text alone.
- The content students study should help them make connections with what they learn in other areas, including those outside of the school.
- The available materials should provide multiple options for teachers to pursue.

First, all ideas are not created equal. In a field like history or biology or art or literature, some works and ideas are truly important. Metaphors of wide scope that organize conception and that focus perception abound. Darwin's idea of random mutation and natural selection, the concept of the diffusion of culture, the ideas of Karl Marx and Sigmund Freud, the music of Mozart and Stravinsky, the architecture of Frank Lloyd Wright and Corbusier, the legacies of the Golden Age of Greece, the ceramic forms of the Tang dynasty in China and those of the Zapotec culture in Middle America, the complex bronzes of the Benin culture in 16th-century West Africa, and the calligraphic achievements of the Meiji period in Japan. These topics and related ideas are important cultural markers, and whether it is these particular ideas or others, deciding what students study is the first order of business in curriculum planning. Nothing is more important in curriculum than making decisions about content inclusion and content exclusion. It may not be sexy, but it is consequential, and no effort to build creative curriculum materials can neglect decisions about what is worth teaching.

The second criterion for curriculum development pertains to creating activities that genuinely challenge children and adolescents to think in new ways and to engage in difficult forms of problem solving. From April through June 1989, I spent three mornings each week in two excellent 3rd grade

classrooms trying to understand what good elementary school teachers do when they teach. One feature of the two superior teachers I observed was their supportive way of working with their students. I rarely heard an acrimonious word spoken. The atmosphere was positive, and the children were happy. At the same time, I got the sense that as good as things were, the students' activities could have been more demanding and could have challenged them more to think in new ways about old ideas. What would it mean to create challenging problems in math, or in social studies, problems that require creative thinking or problems in which children might not succeed? I am not advocating constructing a curriculum designed for failure; I am advocating a need to create curriculum activities that stimulate, indeed, that challenge, the best children can do.

In some classrooms, the teacher's concern with the students' mental health is so important that virtually nothing but positive reinforcement is provided, regardless of what children do. Ironically, this attitude might be comfortable for children, but in the long run it can cultivate dependency because children begin to look to the teacher for approbation rather than to the character or adequacy of their own work. Children who step up to the plate and hit a home run, make it successfully to first base, or strike out, appraise their efforts on their own. Knowing that we have failed at a task is important because if we know when we have failed, we also know when we have succeeded. Creative curriculum development provides activities that challenge, that require higher order thinking, and that diminish students' dependency on the teacher in knowing when they succeeded.

Much higher order thinking, as Chris Clark observed in our conversation under the trees, is not primarily a matter of learning new content but of re-minding old content, of remembering content already learned, thinking about it in new ways. We help children make new connections by recontextualizing ideas so that they take on new meaning. Koestler calls it "bisociation."[9] He places this process at the heart of creative thinking. Duchamp, of course, has created "ready-mades" and "found objects" that help us see even ordinary urinals in a new light, once they are recontextualized, in his case at the Armory Show in Chicago in 1913. Picasso's combination of a bicycle seat and handlebars gives us the head of a bull once they are imaginatively juxtaposed. Can creative curriculum developers design such activities so that teachers, in turn, can provide them to their students?

A third criterion pertains to the forms of representation used to help students understand the content they are studying. The notion *form of representation* is something I develop in *Cognition and Curriculum*.[10] This notion

[9]Arthur Koestler, *Insight and Outlook* (New York: Macmillan, 1949).

[10]Elliot W. Eisner, *Cognition and Curriculum. A Basis for Deciding What to Teach* (New York: Longman, 1982).

is related to the work of Ernst Cassirer, Susanne Langer, Rudolf Arnheim, and Nelson Goodman. Here I argue that the sensory system is the primary source of empirical information about the qualitative world we inhabit. By refining this system through a process called *perceptual differentiation*, we can experience increasingly subtle aspects of the world, and out of such experience we form concepts. Concepts are sensory in character. We have a concept when we can imagine through our sensory modalities what that concept is. Thus, even so abstract a term as *infinity* becomes meaningful if, and only if, the child is able to experience space or time and imagine it going on forever. Without this ability, the word *infinity* remains simply a form of meaningless verbal learning because it has no semantic content.

Forms of representation are the means through which concepts become public. Forms of representation emerge in visual qualities, auditory qualities, and qualities of movement, as well as through text and number. We call their social manifestations visual art, music, dance, literature, science, and mathematics. Each form of representation both constrains and makes possible a particular kind of meaning. Poetry, for example, can convey what literal language cannot, and vice versa.

Cognition and Curriculum argues that using different forms of representation in the curriculum has three important educational benefits for students. First, the epistemological—each form of representation fosters particular kinds of experience and engenders different kinds of meaning. Second, different forms of representation practice and develop different mental skills. Third, using a wide range of forms of representation within the curriculum increases the educational equity in classrooms, aptitude differences among students are accounted for because students have greater opportunities to learn through forms that play to their strengths. If the only game in town is decoding literal text, students who learn best through visual or metaphorical forms are disadvantaged.

Two examples illustrate the use of multiple forms of representation in curriculum: In one, a recent Harvard doctoral dissertation has tested the conception of cognition presented in *Cognition and Curriculum*.[11] The other comes out of one 3rd grade class I observed last spring.

Terry Epstein, a high school social studies teacher, recently completed her doctorate at Harvard and wanted to determine whether using multiple forms of representation in both curriculum and evaluation would enhance her students' understanding of the slavery period immediately before the Civil War. Epstein created a curriculum unit of the period that used text, as well as the film *Roots*. She played the music of the slaves, asked her students to read the slaves' folk sayings, and she showed them pictures of the period. The students

[11]Terne Epstein, "An Aesthetic Approach to the Teaching and Learning of the Social Studies" (unpublished doctoral dissertation, Harvard University, Graduate School of Education, 1989)

also read the slaves' myths, sampled their food, and danced their dances. She tried to put her students in the slaves' shoes through various forms intended to reveal the character of the slaves' lives. In addition, she gave the students the option of conveying what they had learned by creating their own music, writing poems, performing dance, painting pictures, as well as by writing text. The students could use whatever form or forms they wanted to use.

Epstein displayed the kind of creative curriculum development and evaluation I am talking about. Coming to know the slavery period requires more than textbook forms. Understanding what students have learned requires more than formal testing. In our cultures, different people convey to the rest of us what they have experienced through many forms. We call these forms art, music, poetry, literature, history, science, and dance. They each have different things to say. Approaches to curriculum and evaluation that exploit diversity broaden our epistemology, develop important cognitive skills now neglected, and provide greater educational equity to our students.

One of my doctoral students at Stanford, Marcy Singer, is pursuing a similar study on the depression era. She is using a subset of individual students as resources for gaining an in-depth understanding of just how different forms of representation help students understand what they study.

To move from the secondary to the elementary school, consider how a 3rd grade teacher, Kiomi Masatani, helped her 8- and 9-year-old students understand ideas related to *structure* and *function* in biology. Masatani's class went on a field trip to a nature center located in the baylands, an area of land and water inhabited by a variety of birds, plants, and other living creatures. But before going out to walk on the shore, Masatani talked with her class about the differences in the bills of various kinds of birds. Some bills are short, and others are long, some are wide or spoonlike, and others are narrow, like tweezers.

She then gave all the students a small paper cup and asked them to pretend that they were birds and that the cup was their stomach. She asked them to imagine themselves looking for food, they were hungry, and night was rapidly approaching. Their job was to find food and to put it into their stomach—their paper cup. She then divided her class into groups of three and gave each child in each group a pair of tongue depressors or toothpicks or two spoons. She sprinkled small metal washers on the rug next to where they sat. Their job was to pick up and put into their stomach as many metal washers as they could with their "bill." They had only a minute or so for the task. Afterwards, she reassembled the class and asked each group to indicate how many washers each child had put in his or her stomach. She listed the amount and then calculated an average for each group. Those with tongue depressors averaged so many, those with spoons so many, and those with toothpicks so many.

Next, she sprinkled small marbles on the floor and asked them to do the same thing. Again, calculations were made. Then she sprinkled marbles and

washers and toothpicks on the floor and asked the children to repeat the activity. The students clearly saw that different bills were suited to particular forms of "food." Masatani's calculations at the end of the period displayed the conclusions.

What Masatani taught the youngsters was an important Darwinian idea about natural selection and about the relation of structure to function. After this exercise, her children were not only ready to look at the birds but to think about and come to understand them.

I now turn briefly to the final two criteria for creative curriculum development. The fourth criterion is making connections between the subject matter students study and other subjects in the curriculum, and perhaps even more important, events studied inside of schools should relate to events occurring outside of school.

Structural fragmentation, particularly at the high school level, is a fact of life in American schools.[12] I have no reason to believe that such fragmentation is limited to schools in the United States. American high school students can study U.S. history and American literature without recognizing any connection between the two. How can we design courses that facilitate connections? Basil Bernstein, the British educational sociologist, distinguishes between collection-type curriculums and integrated-type curriculums.[13] The latter type uses content from several disciplines in a way instrumental to a larger idea and in the process increases the students' awareness of connectedness. Collection-type curriculum, the kind most prevalent, treats each subject as an independent entity having little or no connection to others.

At Stanford University, we are trying to foster connections for our undergraduates in a program called Human Biology and in another called Values, Technology, and Society. What would it take to design materials that intentionally foster integration? It would surely require, among other things, a different form of assessment than we now employ.

Finally, the fifth criterion is giving teachers options within the materials they are to use. My conception regards ideal curriculum materials as amplifiers of the teacher's judgment. Curriculum materials should not be designed to constrain teaching behavior but to enlarge the teacher's ability to exercise professional judgment. After all, few curriculum developers working on contract for ministries of education or for commercial publishers know the children who will use the materials they develop. The classroom teacher does.

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[12]Elliot W. Eisner, "What High Schools Are Like An Inside View" (unpublished report, Stanford University, School of Education, Stanford, CA, 1985), John I Goodlad, *A Place Called School* (New York. McGraw-Hill, 1984), Theodore Sizer, *Horace's Compromise The Dilemma of the American High School* (Boston: Houghton-Mifflin, 1984).

[13]Basil Bernstein, "On the Classification and Framing of Educational Knowledge," in *Knowledge and Control New Directions for the Sociology of Education*, ed M F D Young (London Collier-Macmillan, 1971), pp. 47–69.

Therefore, those who create intended curriculums should build into them different options, including different paths, teachers can take. There are always different roads to Rome, different sequences to follow, different connections to point out, different activities to employ to reach an aim, different forms of representation to use, different assessment tasks to consider.

The technical problem for the curriculum designer is to maximize options without providing so much information that the sheer volume of reading becomes a disincentive. The technical problem also consists of designing materials that are so attractive that teachers and students will enjoy working, or even playing, with them. We need to get away from curriculum materials that look like they are a manual for an M-1 rifle. The phrase *user friendly* is not far from the mark. Curriculum design is a communication specialty awaiting to be discovered by most school districts.

The ecological approach to school improvement will require attention to much more than the intended or the operational curriculum. It will require attention to how schools are organized, to the roles we assign to teachers, to how we evaluate the processes and outcomes of schooling, and to the lifelong conditions we create to foster professional growth among teachers and school administrators.[14]

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[14]This paper is a modified version of an address given to the Sixth World Conference of the World Council for Curriculum and Instruction, Leeuwenhorst Congress Center, Noordwijkerhout, the Netherlands, August 5–13, 1989.