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The Wider Goals of Education: Beyond the 3 Rs*

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The wider goals of education,[1] often signaled by such phrases as "the development of the whole child," have been emphasized in curriculum documents from many countries[2] (although, significantly, neither in *The Condition of Education*[3] nor in the *National Curriculum*[4]. The importance of fostering qualities like initiative, responsibility, the ability to work with others, problem solving ability, and the ability to understand how organizations and society work and the willingness to play an active role in them has also been emphasized in documents on vocational education[5] and stressed for almost a century in the most widely cited books in teacher education, such as those of Parker, Dewey, and Kilpatrick. And some school systems like Virginia and Newton have, over the past 60 years, poured vast amounts of time and money into educational programs that sought to foster such qualities.[6]

Parents, teachers, pupils, ex-pupils, and employers also stress these wider goals. When their opinions are canvassed, it emerges that the vast majority of each of these groups think that the main goals of education include fostering such qualities as initiative, the ability to make one's own observations, the ability to communicate, leadership, and the ability to understand and influence society.[7]

Further, there is now abundant research that demonstrates the importance of these competencies in the work place and society. Studies have been made of the qualities that distinguish more from less effective

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machine operatives, bus drivers, construction site workers, naval officers, doctors, managers, teachers, and scientists,[8] and of those that distinguish those employed in more successful and innovative firms from those in less innovative firms.[9] The concerns and competencies that characterize the general populations, employees, and managers of more versus less rapidly developing economies have also been studied.[10] And there have been investigations of the competencies possessed by more (versus less) effective citizens and of those that characterize the members of more (versus less) successful political systems.[11] A fairly consistent picture emerges: the qualities that make for effectiveness in life — both at work and outside — and those that result in economic, social, and personal development are indeed those emphasized by many writers on education for over 100 years and those stressed by most parents, pupils, teachers, employees, and employers.

Two additional insights emerge from this work. One is that, at the level of the team, organization, and society, the need is for a balance of people who have *different* preoccupations and patterns of competence. (The implication is that it is essential for the educational system to produce people with a wide variety of *different* concerns and patterns of competence, a goal that has serious ramifications for common curricula and preoccupations with equality). The other is that the ability to develop one's own understanding of how society works, the ability to influence it, and, especially, the ability to improve its operation (i.e., a set of civic and political competencies) all turn out to be much more important aspects of competence in modern society than the previously mentioned reports and opinion surveys suggest.

Despite the emphasis placed on, and the demonstrated importance of, fostering qualities of this kind, surveys[12] have consistently shown that the vast majority of teachers (95 percent or so) neglect to do so. Given this neglect, it is not surprising that, when outcomes of education in these areas are assessed, the results are dismal.[13] There are several important and non-obvious reasons why teachers generally fail to foster these qualities but, for now, only three will be touched on here.[14] The first two involve the failure of curriculum specialists (a) to highlight competencies like those mentioned above and distinguish them from the knowledge-of-content goals that dominate subject-based curricula, textbooks, and teaching; and (b) to articulate the educational processes to be used to foster these competencies and to (i) either link them to subject-based teaching or (ii) highlight the tensions between the two. The third concerns the absence of appropriate formative and summative procedures to assess progress toward these goals.

Fostering High-Level Competencies

The work of one teacher who effectively fostered high-level competencies will first be discussed in such a way both to make explicit some of the key features of the educational activities that are involved in fostering high-level competencies and to highlight the problems which such work poses for assessment. Particular attention is paid to assessment for two reasons: first because teachers and pupils mainly attend to that which is assessed, and secondly because becoming clearer about barriers to assessment leads one to become clearer about the nature of the competencies themselves. We will start by looking at some aspects of the work of this teacher and examine the problems it poses for assessment. Then we will move on to look at other aspects of her work and the problems which that poses. Finally, other features of the processes which promote the development of such competencies will be highlighted from the work of other teachers.

The material comes from a study initiated because research undertaken by Her Majesty's Inspector of Schools[15] in Scotland had shown that, despite repeated exhortations by Scottish governments, over a period of 40 years, to encourage teachers to foster qualities like those mentioned above, and despite considerable rhetoric, there had been little change in Scottish primary education. As Bennett[16] had shown in England and Fraley[17] and Goodlad[18] had shown in the U.S., "Progressive education just had not happened." The author was therefore asked to find some teachers who successfully fostered some of the qualities in question; portray their work in such a way that others could and would do likewise; document the benefits (so that more parents, teachers, administrators, and politicians would recognize its value); and identify the barriers that had prevented wider diffusion of such work.[19]

Previous work in the area. Mainly to discourage American readers from viewing the material presented as advocating an approach that has been tried and failed before, it is important to set our material in the context of the American literature on Progressive Education and Core Curriculum. Many of the educational philosophers and policy makers who have advocated Progressive Education or Core Curriculum have only vaguely specified the goals to be achieved. This has been particularly true of what are perhaps the two largest groups of "Progressive Educators," namely, (1) the "romanticists" who have advocated that form of "child-centered education" in which the child is to be left free to identify and develop his or her own potential, and (2) those who have been so appalled by either (or both) the personal and social consequences of the

competitiveness bred in many schools or the criteria of "academic merit" used to allocate position and status that they have reacted against all explicit objectives and standards. These groups have laid themselves open to the accusation — which Bernstein[20] rightly levelled at the "progressive" Plowden Report — that they were urging teachers to pursue multiple but implicit (or intangible) goals.

Despite a welter of accounts of classroom practice, the goals to be achieved or the methods to be used still remain largely implicit. Most descriptions read as if the object of the exercise were to have children discover a mass of low-level everyday knowledge, when the objective could have been to develop a range of high-level competencies. Indeed most of the accounts of the most prestigious work in the area, namely, that occurring at the Lincoln School of Teachers College,[21] come across in precisely that way, even though a close reading of the accounts of those who organized a few of the projects shows that they had other objectives in mind. What is almost entirely missing is, on the one hand, a theoretically-based account of the motivational dispositions, or *competencies*, which were to be fostered through the activities described and, on the other, an account of the developmental *process* itself. For example, it is often emphasized that pupils are to choose the project they will undertake "democratically." However the competencies to be developed in the course of either that "democratic" decision-taking process or in the course of the project itself are rarely spelled out.[22]

"Progressive Education" has rarely been portrayed as having distinctive educational *goals*. Still less has it been characterized as a highly demanding and structured set of activities designed to foster more important competencies than those dominating traditional classrooms. It is usually presented as a different *method* of achieving the same goals that other teachers strive to attain and, perhaps, equalizing achievement of those goals.[23] Furthermore, none of the great thinkers who have written on Progressive Education have followed through into the crucial business of assessment.[24] Yet no one, teacher or pupil, can very effectively pursue multiple, intangible, and un-assessable goals. A fundamental problem stems from the hegemony of the view that education is neither more nor less than the inculcation of knowledge, a view called the technico-rational model of education by Schon.[25] In contrast with this prevailing perspective, we will *not*, in the remainder of this article, be talking about mastering *content*.

The teacher whose work we will focus on was *not primarily* concerned with conveying knowledge of subject matter to her pupils (although she did encourage them to master, and contribute to the development of,

high-level specialist knowledge). She was concerned with fostering high-level motivational dispositions or *competencies*. Just how unusual this approach is may be underlined by noting (1) that there is no reference to such work in the 10-volume *International Encyclopaedia of Education*[26] or in the last two editions of the *Handbook of Research on Teaching*;[27] and (2) that there are few American psychologists or educationists, Taylor being a notable exception,[28] who use the word "learning" to refer to anything other than mastery of content. Yet there is no reason why it should not be used to refer to learning to do such things as persuade, muster arguments, judge, make good decisions, initiate hunch-based action and use one's feelings to monitor its effects, put others at ease, lead, invent, make one's own observations, develop better ways of thinking about things, or build up one's own understanding of how society works and the willingness and the ability to influence it. The focus of this article, to repeat, is on how children learn to do precisely these things — that is on how the development of competence to do such things can be fostered — and on how these kinds of learning and development can be assessed.[29]

Assessment problems of competency-oriented education. The teacher in question made use of interdisciplinary, project-based, inquiry-oriented methods in almost all of her teaching.[30] This in itself was extremely unusual since, even if project work existed in other classrooms, it tended to be viewed as a kind of time filler or reward, available to those who had "finished their work" at the end of the day.

The project work which this teacher's pupils (8- to 11-year olds) undertook within their classroom was an integral part of original inquiries carried out in the environment around the school. These inquiries were organized around a topic, or theme. One such theme covered "The local area and its surroundings." This "project" involved a re-examination of a local archaeological excavation, a study of butterflies and their habitats, a study of population movements over time, a study of the history of each house and the occupations of its changing occupants, changes in patterns of agriculture, and a study of the current social structure of the area (who was related to whom and what they talked about). All projects involved original research. However, some involved the initiation of social action, such as getting something done about pollution in the local river. Such a project might be used both as a tool of social research and as a means of promoting the development of the understandings and competencies required to initiate effective social action. Within each project, pupils had personal projects, distinctive areas of specialization, and distinctive roles. Thus, one pupil undertook a study of butterflies and

their habitats while another studied the history of a hay-rake. The project work which was carried out did not consist, as it so often does, of merely looking material up in reference books, although carrying out an original inquiry or initiating and monitoring some social action might involve tracing and using *specialist* books, research reports, or original accounts of scientific investigations or archeological excavations.

But all of this, although extremely unusual, was not what was *most* distinctive about the work of this particular teacher. Most striking were her unusual *concerns*. Like Barnes and Young,[31] and Curtis,[32] she was not preoccupied, as were most teachers, with course work, with covering a syllabus or with a particular process, such as creating a "democratic" classroom or encouraging an interest in architecture. Instead, she focused *on the high-level competencies which the pupils were to develop in the course of their work*. The competencies included reading, writing, spelling, and counting. But they also included communicating, observing, finding the information which was needed to achieve goals (and which often had to be collected by observation or by talking to people rather than reading books), inventing, persuading, and leading. In this context, even the 3 Rs took on a different complexion. Reading, for example came to include such things as using structure to locate a section which might or might not contain desired information, using what was read to stimulate lateral thinking, and the ability to discard the irrelevant. Writing came to involve such things as the use of allusion and innuendo to influence the reader.

(1) *First-level problems*. It is easiest to begin our discussion of the benefits conferred on her pupils by the work organized by this teacher by reviewing those that are closest to the more widely discussed and assessed outcomes of education. Apparently familiar though these benefits are, they pose almost insuperable problems for conventional tests and forms of assessment.

Consider the following: As has been indicated, in the course of his environmentally-based project work, one pupil had become an expert on the distribution of different species of butterfly in the locality and the dependence of various stages in their life cycles on local habitats. Another had become an expert on the history of the hay-rake — how it had changed over time and how those changes related to developments in steel making and patterns of land use. A third had become an expert on the social structure of the area — who was related to whom, who knew whom, and what the various groups talked about. The more carefully we examined the work of the class, the more we noticed that each pupil had developed an idiosyncratic area of specialist knowledge, even though

his or her area of expertise could not always be indicated by reference to an academic discipline. In the conventional measurement procedures, separate tests would be required to do justice to each pupil's accomplishments. In one sense this is not important, because not only the teacher but also many of the other pupils were aware of each pupil's achievements. But problems arose when the school had to deal with external agencies, such as parents, heads of secondary schools, and inspectorial (accountability) agencies. These problems would have been acute, had the school been a secondary school that had to deal with colleges and employers.

(2) *Second-level problems*. But these are the least of the measurement problems posed by the achievements of these pupils. More important than the unique store of specialist knowledge built up, say, by the first pupil was the fact that he had developed a selection of the *competencies* required to be a scientist. Among other things, he had learned to be sensitive to the cues that told him he had an unresolved problem; he had developed the tendency to try to make glimmering insights on the fringe of consciousness explicit (and even tried to do so when he woke up in the night); he had experienced the satisfactions that come from noticing, and beginning to understand, something which no one had noticed or understood before; he had contacted university lecturers who were interested in related problems and spoken to them as equals; he had sharpened up his ideas by sparring with them; he had learned not only that he had a right to ask questions and that his questions were as good as those posed by others, but also that he had a right to expect others to help him to answer his questions; he had learned to tolerate the frustrations involved in trying to find better ways of thinking about things; he had learned to find ways of summarizing his insights, not only in words but also in diagrams and mathematical formulae (indeed he had even come to see mathematics as a set of languages).

The competencies listed here are a subset of the competencies required to pursue any valued goal effectively, competencies which can, to a degree, be substituted one for another.[33] We have come upon them here in connection with discipline-based studies, but we could equally well have encountered them as a result of examining other activities which people might value and be motivated to undertake effectively. But, pursuing the academic discipline-oriented line of inquiry on which we have embarked, it is now important to note that the second pupil had developed a different subset of these self-motivated preoccupations, sensitivities, thoughtways, and perceptions in the course of undertaking an original historical study. The third had developed a similar, but by

no means identical, selection of the competencies needed to be an excellent sociologist. And so on for the other pupils. It follows from these observations that, even more important than the inability of our traditional assessment procedures to identify and credential the possession of idiosyncratic, specialist, high-level, new knowledge is their inability to document the growth of the subtle skills, motivated habits, thoughtways, and preoccupations which go to make up the repertoire of the competent scientist, historian, or sociologist. And the same is true of the competencies required to be a competent photographer, reporter, cook, or mother.

Third-level problems. But even this does not exhaust the problems which the educational process orchestrated by this teacher pose for assessment. The pupils had worked as a group and had developed specialized roles within that group (and the competencies needed to function effectively in those roles). One pupil had become good at coordinating the activities of others, another at putting others at ease and smoothing over interpersonal difficulties. Another had become an expert at presenting the results of other people's work to external visitors, i.e., being a communicator rather than an original researcher. In the course of undertaking these activities, all pupils learned to communicate, to invent, to make their own observations, to work with others, to lead, and to follow. Conventional assessment procedures are utterly unable to testify to, or contribute to the development of such high-level competencies.

It may be noted in passing that one particularly important benefit of the approach adopted by this teacher was that the pupils came to view each other as having both specialist areas of knowledge and particular types of competence. Instead of learning to think of each other, as do pupils in most other classrooms, as "smart" or "dumb," they, aided by concepts supplied by their teacher, learned to identify each other's strengths and talents. To the extent that this is not negated by their experience in secondary and higher education, such a way of thinking would seem likely to provide an important basis on which to build one of the most important managerial competencies identified in the studies summarized elsewhere,[34] namely the tendency to think about the talents of subordinates and colleagues and how best to place, develop, and utilize them. Interestingly, such competencies were found to be conspicuously absent in Great Britain and the United States, but not in Japan or Singapore.

The three sets of measurement problems identified above are of the greatest importance. The absence of means of assessing these three sets of outcomes of education helps to explain why educational processes like

those mentioned have not been more widely disseminated. Teachers like the one whose work prompted this discussion establish their programs as a result of persistent, demanding, painstaking, and inventive work over perhaps 20 years. They develop special skills and sensitivities. It is too much to expect most teachers to do this. If other teachers were to run similar programs, they would need tools to help them to identify each pupil's incipient interests and competencies, and to help them to invent appropriate developmental experiences to help each pupil develop the competencies in question, and to monitor pupils' subsequent progress in these terms. They will also need tools to help them identify the developed competencies so that these can be recognized when the time comes to scramble for entry to courses of further or higher education or a job. Without the necessary developments in measurement methodology, it is impossible for pupils (or their teachers) to monitor progress toward their goals or point to what they have learned. If they cannot compare themselves either with themselves at some previous time or with other pupils (perhaps pupils in another school or class), they cannot be certain that they have learned anything. Under such circumstances they are unlikely to feel that their time has been well spent. And the teachers themselves need some means of getting recognition from parents, colleagues, and superiors for having fostered these competencies.[35]

The Educational Process

Having highlighted some of the problems which this teacher's educational activities posed for assessment, we may now draw together some of the distinctive features of the educational process she employed. What she did is best captured by saying that she created *developmental environments* in which pupils were helped to identify their motives and incipient talents and then encouraged to practice, and thereby develop, a number of high-level competencies (including high-level reading, summarizing, and communicating competencies) while undertaking activities they cared about. What they did was often important to others as well as to themselves. It often contributed in important ways to the overall performance of the group and, in some cases, provided important information to outsiders, such as university researchers or local authority personnel. However, the teacher strengthened her pupils' tendency to display difficult and demanding self-motivated competencies by arranging things in such a way that pupils would experience the satisfactions that came from so doing.

To orchestrate these activities the teacher tried to make explicit each

child's motives and incipient talents and to invent experiences that would tap those motives and harness those talents. She then monitored each child's reactions, and intervened again when necessary. She recruited the other pupils to assist in this process, thus both sharing with them the concepts that are required to think about multiple talents and engaging them in the patterns of thinking and feeling required to develop and utilize them.

Other features. We may now move beyond the work of this particular teacher to discuss how effective teachers in general promoted the development of multiple high-level competencies. These teachers' own *behavior* was often a striking source of stimulation and growth for their pupils. The effective teachers shared their own thoughts and feelings with their pupils; their planning and anticipations; their concern with excellence, innovation, and efficiency; their disdain for petty regulations; their anticipation of obstacles and their search for ways round them; their concern with aesthetics; and their feeling of being in control of their destiny. They demonstrated how to capitalize upon whatever resources were available, indeed how to select their purposes in the light of the resources that were available and achieve these purposes with those resources instead of, as was characteristic of many other teachers, complaining about a lack of resources. In these ways they communicated their values to their pupils and portrayed effective, competent behavior in a form that the pupils could emulate. It was not only the explicit behavior that was portrayed in this way, but the entire pattern of thinking and feeling lying behind it. By eschewing the role of expert and provider of wisdom, by regularly (and successfully!) trying to do things which they did not know how to do and tackling questions which they did not know how to answer, they showed their pupils how to be learners, adventurers, and innovators. By demonstrating how thoughts, feelings, and persistence lead to satisfactions which the pupils wanted, they powerfully strengthened the pupils' tendency to engage in the relevant behaviors. By accepting pupils' suggestions, they showed them that authorities and leaders are not only sources of information and organization, but also people who, at best, help other people to articulate and share what they know, acknowledge what others have contributed, and lead others to feel capable of achieving and motivated to achieve their own goals.

In a similar way their pupils learned a great deal from, and came to rely extensively on, their fellow pupils. They developed a partnership in learning. Aided by the vocabulary supplied by their teacher, they became able to think about, and value, the contributions of others who had not "done as they were told." The teachers would enlist the help of their pupils in trying to find ways of tapping the energies of other, perhaps

in some ways disruptive, pupils. In this way they both made explicit the fact that not everyone contributes in the same way to a group process and also demonstrated the thought processes contributing to effective leadership and management. By involving their pupils in this process teachers helped them to develop leadership and managerial skills.

Some of the teachers encouraged their pupils to read stories whose heroes or heroines shared pupils' own particular concerns, and portrayed some of the psychological and physical components of the competencies pupils were predisposed to exercise, and illustrated personal and social consequences for pupils. In this way teachers helped their pupils to clarify values and exposed pupils to role models who translated these values into effect. Some also got their pupils to write stories into which pupils wrote characters with shared concerns. As they wrote about the activities undertaken by these characters, they would mentally rehearse some of the components of the competencies which they themselves were predisposed to display. Some of the teachers either brought adults into the school to do things that excited them to engage some of the children in the process, or placed pupils with particular adults outside the school so that the pupils would see these adults doing things they themselves liked, exercising high-level competencies in the process, and contributing to the community. In this way, these teachers exposed their pupils to a much wider range of potentially significant role models than they could possibly have provided themselves.

While these examples come from primary school practice, Winter, McClelland, and Stewart,[36] in an outstanding study of Ivy League and other colleges in the United States, have shown that the same processes can operate at this level. Neither the course content nor residential experience does of itself contribute to the development of such competencies. What is important is (a) participating in challenging activities that demand high-levels of initiative, self reliance, leadership, and specialist knowledge; (b) experiencing the satisfactions that come from having undertaken such difficult and demanding activities successfully; and (c) exposure to mentors who portray the thoughts, feelings, and behaviors that are characteristic of competent people. Jackson[37] noted the importance of many of these activities in his study of the maximally developmental and transformational experiences which people had had in the course of their education broadly defined. Something which he noticed, and was also true in our studies, was that effective teachers were usually likely to read parable-like stories to their pupils.

Toward Assessments of Competence

As noted earlier, one of the most important barriers to the wider adoption of the necessary educational activities is the "intangibility" of the qualities that are to be fostered. Their intangibility makes it (i) difficult for teachers to manage, simultaneously, some 30 individualized, competency-oriented, educational programs in which pupils develop some of these wider competencies in the course of undertaking activities which they care about, (ii) difficult for students to monitor their own development and to recognize either their own accomplishments or those of their peers, and (iii) impossible for students to get recognition for possessing high-level competencies when the time comes to scramble for job or entry into a course of higher education. (The last of these is of particular importance because other research we have undertaken has shown that it [and not the wishes of parents, teachers, or ministers of education] is what counts in the certification and placement process that primarily controls what happens in schools.[38]

Finding ways of assessing generic competencies is therefore crucial if programs which will foster them are to be introduced more widely into schools.[39] There is space here to make only three observations.

The first is that, since taking initiative, solving problems, communicating effectively, and exercising other high-level competencies are all difficult and demanding activities, no one is going to display them unless they like the activity they are undertaking. Teachers therefore cannot make meaningful assessments of these qualities unless those concerned are working at tasks which they personally care about. However, having once created "developmental environments" in which pupils *can* pursue their own interests and in which they are sensitively coached so as to foster the requisite competencies, it *is* possible for teachers to observe pupils exercising such competencies and, as a result, to make meaningful assessments of them.

The second is that, if one sets oneself the task of documenting *what* pupils have learned while they have been in school (as distinct from finding out whether they have learned something that one thinks they ought to have learned), one finds oneself looking at the effects of education programs on what pupils think it is important to do, on their self-images and priorities, and on what they think would happen if they were to undertake activities they care about. When one does this, one finds that one *can* document their growth, or the lack of it as is more often the case in schools as they are currently organized. One then finds that teachers, far from "making no difference," have dramatically different

effects on pupils' values, priorities, and patterns of competence.

Thirdly, and more generally, the assessment of high-level competencies requires a value-based rather than a value-free measurement model. As we have seen, it does not make sense to attempt to assess people's competence to undertake high-level activities unless they are doing things they are excited about. Having established what people care about, it is possible — by both observation and questioning — to find out whether they do the things which it would be necessary for them to do to undertake those tasks effectively. In relation to these tasks, do they try to analyze and conceptualize? Do they seek other people's help? Do they turn their emotions into what they are doing? Do they persist in the face of difficulties? And so on. These competencies contribute cumulatively and substitutively to effective performance. It is the number of these different things which they do that is important. The measurement model we need is therefore one that is value-based rather than value free and one that is primarily concerned with identifying the range of relevant competencies which the individual brings to bear. For these reasons, it is impossible to index these qualities using the conventional value-free, internally-consistent paradigm.

It is important to underline two conclusions. First, pupils' opportunity to develop and display high-level competencies is dependent on what their teachers do. It is therefore dependent on their teachers' ability to manage independent, thoughtful people who make their own observations and take initiative, individually or collectively, to do something about those problems. Second, it further follows that what teachers, as observers, see when they evaluate their pupils is very much a product of their own creation. Nevertheless, it *is* still possible, in a sense, to look inside pupils' heads and find out what they value, how they think, what their priorities are, and what strategies they would deploy to tackle problems they care about. If one frees oneself from traditional concepts of measurement it *is* therefore possible to obtain assessments which are at least no more dependent on the concerns and thoughtways of whoever constructed the test than are traditional measures.[40]

It would be misleading to give the impression that the absence of an appropriate understanding of the nature of high-level competence and the ways in which the development of its components is to be promoted, the absence of tools to help teachers to orchestrate multiple competency-oriented education programs, and the absence of appropriate summative assessment procedures are the only barriers to wider implementation of

competency-oriented, multiple-talent programs of education. Other barriers stem from the dilemmas which the value-laden nature of these qualities pose for teachers who wish to foster them; from the difficulties which teachers have in managing independent, thoughtful pupils who decide for themselves when they will work and what they will work at; and from the problems which the necessarily diversified educational programs pose for quality control in education. Barriers to educational progress like those discussed here have not been obvious in the past. Adventurous, fundamental research of a kind not generally favored by funding agencies is required to identify and overcome them. Given that sort of research, and only given that research, progress *is* possible.

References

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1. Research that helps to clarify and realize the wider goals of general education is summarized in John Raven, *Education, Values and Society: The Objective of Education and the Nature and Development of Competence* (Oxford, England: Oxford Psychologists Press, 1977); *Competence in Modern Society: Its Identification, Development, and Release* (Oxford, England: Oxford Psychologists Press, 1984); "The Assessment of Competencies," in *New Developments in Educational Assessment*, eds. Harry D. Black and W. Bryan Dockrell, (*British Journal of Educational Psychology, Monograph Series* No. 3, 1988), pp. 98-126; "A Model of Competence, Motivation and its Assessment," in *Assessing Academic Achievement: Issues and Problems*, eds. Harold Berlak (Albany, N.Y.: SUNY Press, 1990), pp. 106-299; "The Crisis in Education," *The New Era* 68 (No. 2, 1987): 38-44; "The Barriers to Achieving the Wider Goals of General Education," *British Educational Research Journal* 16 (No. 3, 1990): 273-296. Also, John Raven, Jill Johnstone, and Tim Varley, *Opening the Primary Classroom* (Edinburgh: The Scottish Council for Research in Education, 1985).
2. E.g., Harry Passow, Harold J. Noah, Max A. Eckstein, and John R. Mallea, *An Empirical Study of Twenty-One Educational Systems* (Stockholm: Almqvist and Wiksell, 1976); "Munn" Report, *The Structure of the Curriculum* (Edinburgh: Her Majesty's Stationery Office, 1977).
3. U.S. Department of Education, *The Condition of Education* (Washington, D.C.: National Center for Educational Statistics, 1981).
4. Department of Education and Science, *National Curriculum: From Policy to Practice* (London: Her Majesty's Stationery Office, 1989); National Curriculum Council, *Curriculum Guidance, 3: The Whole Curriculum* (York: Author, 1990).
5. The Manpower Services Commission (now the Training Agency) in the United Kingdom, in direct conflict with the more recent National Curriculum, in 1984 embarked on a vast "Technical and Vocational Education Initiative." This has now been extended to "The Higher Education Initiative." Both aim to foster "initiative, problem solving . . . creativity . . . the qualities which make for enterprise . . . understanding of how society works." There are numerous similar programs, such as Michigan's "Opening Doors to Employability" in the U.S.
6. Angela Fraley, *Schooling and Innovation: The Rhetoric and the Reality* (New York: Tyler Gibson, 1981).
7. Lloyd D. Johnston and Jerry G. Bachman, "Educational Institutions," in *Understanding Adolescence*, 3rd edition, ed. James F. Adams (Boston: Allyn and Bacon, 1976), pp. 290-315; John C. Flanagan, *Perspective on Improving Education from a Study of 10,000 30-year-olds* (New York: Praeger Publishers, 1978); Vivienne De Landsheere, "On Defining Educational Objectives," *Evaluation in Education* 1 (No. 2, 1977): 73-190 [Oxford: Pergamon Press]; John M. Bill, Caren J. Trew, and John A. Wilson, *Early Learning in Northern Ireland* (Belfast: Northern Ireland Council for Educational Research, 1974); John MacBeath, Dave Mearns, Bill Thomson, and Sally How, *Social Education: The Scottish Approach* (Glasgow: Jordanhill College of Education, 1981); Raven, *Education, Values and Society*.
8. Much of this work is summarized in Raven, *Competence in Modern Society*; Lyle M. Spencer, *Soft Skill Competencies* (Edinburgh: The Scottish Council for Research in Education, 1983).
9. Raven, *Competence in Modern Society*. Particular reference may be made to the work of David C. McClelland, *The Achieving Society* (New York: Van Nostrand, 1961); McClelland and David G. Winter, *Motivating Economic Achievement* (New York: Free Press, 1969); Everitt M. Rogers, *Diffusion of Innovations* (New York: Free Press, 1962). An important, more recent study is that of Rosabeth M. Kanter, *The Change Masters: Corporate Entrepreneurs at Work* (Hemel Hempstead, England: Unwin Paperbacks, 1985).
10. Raven, *Competence in Modern Society*; McClelland, *The Achieving Society*; Morris A. Graham, John Raven, and Philip C. Smith, "Identification of High Level Competence: Cross-Cultural Analysis between British, American, Asian and Polynesian Labourers," *Organisation Forum*, in press.
11. It is actually truer to say that the economic and social consequences of alternative systems have been studied. See, Gabriel A. Almond and Sydney Verba, *The Civic Culture* (Princeton, N.J.: Princeton University Press, 1963); Alex Inkeles and David H. Smith, *Becoming Modern* (Cambridge, Massachusetts: Harvard University Press, 1974); John C. Flanagan and Darleen Russ-Eft, *An Empirical Study to Aid in Formulating Educational Goals* (Palo-Alto, California: American Institutes for Research, 1975). Particular attention may be drawn to the fact that the Japanese miracle is built on social, rather than technological, innovations, their two most important inventions being, first, their information technology-based mechanism for debating the future and gaining consensus on how a desirable future is to be created, and, second, their capacity to analyze and find ways of penetrating every type of political economy known to man.
12. John I. Goodlad, *A Place Called School* (New York: McGraw-Hill, 1983); John C. Flanagan, *Perceptives*; Jerry G. Bachman et al, *Youth in Transition: Dropping Out* (Ann Arbor, Michigan: Institute of Social Research, University of Michigan, 1971); Lloyd D. Johnston, *The American High School: Its Social System and Effects* (Ann Arbor, Michigan: Institute for Social Research, University of Michigan, 1973).
13. Grace S. Wright, *Core Curriculum in Public High Schools: An Inquiry into*

Practices, 1949 (Washington, D.C.: Federal Security Agency, 1950; Office of Education, Bulletin No. 5); Grace S. Wright, *Block-Time Classes and the Core Program in the Junior High School* (Washington, D.C.: U.S. Government Printing Office, 1958; U.S. Department of Education, Bulletin No. 6); Goodlad, *A Place Called School;* John I. Goodlad, M. Frances Klein, et al, *Looking Behind the Classroom Door* (Worthington, Ohio: Charles A. Jones, 1974); Centre for Educational Sociology, University of Edinburgh, *Collaborative Research Dictionary* (Edinburgh: Author, 1977); ORACLE, described in Maurice Galton and Brian Simon, *Progress and Performance in the Primary Classroom* (London: Routledge and Kegan Paul, 1980); Maurice Galton, Brian Simon, and Paul Croll, *Inside the Primary Classroom* (London: Routledge and Kegan Paul, 1980); Brian Simon and John Willcocks, *Research and Practice in the Primary Classroom* (London: Routledge and Kegan Paul, 1981); De Landsheere, "On Defining Educational Objectives;" Angela Fraley, *Schooling and Innovation;* Her Majesty's Inspectors (Scotland), *Learning and Teaching in Primary 4 and Primary 7* (Edinburgh: Her Majesty's Stationery Office, 1980).

14. The reasons for their neglect are discussed in John Raven, "Some Barriers to Educational Innovation from Outside the School System," *Teachers College Record* 85 (No. 3, 1984): 431-443; "The Crisis in Education," "The Barriers to Achieving the Wider Goals of General Education;" Raven, Johnstone, and Varley, *Opening the Primary Classroom.*
15. Her Majesty's Inspectors (Scotland), *Learning and Teaching.*
16. Neville Bennett, *Teaching Styles and Pupil Progress* (London: Open Books, 1976).
17. Fraley, *Schooling and Innovation.*
18. Goodlad, Klein, et al, *Looking Behind the Classroom Door.*
19. Raven, Johnstone, and Varley, *Opening the Primary Classroom.* The project was small scale and a "case study," "illuminative" [after David Hamilton, *Behind the Numbers Game* (London: MacMillan Education, 1977)], or "educational connoisseurship" [after Elliott W. Eisner, *The Art of Educational Evaluation* (London: The Falmer Press, 1985)] approach was adopted.
20. Basil Bernstein, "Class and Pedagogies: Visible and Invisible," in *Rethinking Educational Research,* eds. W. Bryan Dockrell and David Hamilton (London: Hodder & Stoughton, 1975). There is, of course, a deeper version of Bernstein's argument. That is, the objective was to create a mechanism that would select and advance those who were both able to work out what one needed to do to obtain the preferment of one's superiors and willing to do whatever was necessary. This ability, crucially important to both advancement in, and the operation of, modern society, includes the ability to justify one's behavior by mouthing the right words (in this case about useful education). In learning to do these things pupils would be learning to labor in a much more important way than those pupils described by Paul E. Willis, *Learning to Labour* (Farnborough, England: Saxon House, 1977).
21. See, e.g., Wilford M. Aikin, *The Story of the Eight Year Study: Adventure in American Education,* Vol. 1 (New York: Harper, 1942).
22. Laurence A. Cremin, *The Transformation of the School* (New York: Alfred Knopf, 1961); Fraley, *Schooling and Innovation;* Diane Ravitch, *The Great School Wars* (New York: Basic Books, 1974).

John Dewey, in *The School and Society* (Chicago: University of Chicago Press, 1989); *How We Think* (New York: D.C. Heath, 1910); and *Democracy and*

Education (New York: Macmillan, 1916), seems to have been preoccupied with fostering the skills of the research scientist (the ability to conceptualize, analyze, and experiment) on the one hand and with creating democratic classrooms on the other. His writing does not encourage teachers to make use of multiple talent concepts of ability (for example, by encouraging them to think about a wide range of alternative talents which schools might foster), still less to foster different competencies in different children. Most of William Kilpatrick's writing (e.g., *Foundation of Method* (New York: Macmillan, 1926; Arno, 1972) is obscure in the extreme, but in his 1918 text on "The Project Method," *Teachers College Record* 1918: 319-335, he indicates that, in translating a plan into a reality, pupils should practice proposing, planning, executing, and judging. These are high-level competencies, but Kilpatrick does not analyze them or present them in away that would encourage teachers to reflect on what it means to, e.g., plan and execute, or on the counselling which is necessary if pupils are to practice (and thereby develop) these competencies in the course of undertaking activities they care about. George S. Counts, *Dare the Schools Build a New Social Order?* (New York: John Day, 1932; Arno, 1969), and Harold Rugg (in a range of texts for pupils) seem to have set out to introduce particular understandings of socio-politico-economic processes.

The majority of "Progressive Educators" have been even less specific about the knowledge they have been trying to inculcate or the qualities which should be fostered in pupils. Indeed most have been explicitly opposed to any attempt to specify objectives. However, this majority is made up of two very different groups of people. One group may be termed the "romanticists." They believe that children should be left to do their "own thing" and thereby learn "instinctively" what is important to them. A larger group is clearer about what it is opposed to than what it is for. These teachers have been so appalled by either or both (i) the effects on most children, and thence on society, of the competitive and self-advancement centered climate that permeates most classrooms, and (ii) the selection of a small number of pupils who possess a very limited range of not particularly valuable "academic" competencies (which do not in fact deserve to be so described) for advancement into the most prestigious and influential positions in society that they have been more concerned with destroying the competitive climate and the limited "standards" that characterize most classrooms than with putting something else in their place. (It is this group that is responsible for the cult of mediocrity, which is widely associated with Progressive Education.) What is important from the point of view of this footnote is, however, that, for one or other of these reasons, the majority of Progressive Educators believe that any attempt to state objectives would re-introduce competitiveness.

Most attempts to implement "Progressive Education" seem to have been an appalling mess; see, Roland S. Barth, *Open Education and the American School* (New York: Agathon Press, 1972); Aikin, *The Story of the Eight Year Study;* Charles H. Rathbone "The Implicit Rationale of the Open Education Classroom," in *Open Education* (New York: Citation Press, 1971); Harold Rugg in National Society for the Study of Education, *The Foundation and Techniques of Curriculum Making* (Bloomfield, Illinois: Public School Publishing Co., 1926); Harold Rugg and Ann Schumaker, *The Child-Centered School* (Yonkers, New York: 1928); Wright, *Core Curriculum,* and *Block-Time Classes.* The "bible" of the Progressive Education Movement (National Society for the Study of Education,

The Foundation and Techniques of Curriculum Making) nowhere identifies the competencies that are to be fostered, how they are to be fostered, or how they are to be assessed for either formative or summative purposes. Others, such as Will French et al, *Behavioural Goals of General Education in High School* (New York: Russell Sage Foundation, 1957); Florence B. Stratemeyer, Hamden L. Forkner, and Margaret C. McKim, *Developing a Curriculum for Modern Living* (New York: Teachers College Press, 1947); Hollis L. Caswell and Doak S. Campbell, *Curriculum Development* (New York: American Book Co., 1935); Ralph W. Tyler "Defining and Measuring the Objectives of Progressive Education," *Educational Research Bulletin* XV (1936): 67ff; and Education Policies Commission, *The Purposes of Education in American Democracy* (Washington, D.C.: National Education Association, 1938), do attempt to identify goals, but have muddled together goals at a wide variety of levels. The frameworks are not multiple-talent frameworks, and the goals are only weakly linked to curriculum processes.

Most accounts of classroom processes focus on encouraging students to take "democratic" decisions within the compulsory attendance framework of schools (a framework that deprives pupils of citizenship rights and most of the sources of power and influence [e.g., the option to withdraw, and the opportunity to influence decisions and gain treatment suited to their own priorities through the marketplace] which are open to people in capitalist "democracies") and in which teachers could not allow students to implement many decisions that would command majority support from pupils, on "discovering" low-level everyday facts about the local area that have nothing to do with each other, little bearing on any area of organized endeavor, which the pupils are unlikely to need in the future, which the teacher already knows, and which are mostly "discovered" from books, sometimes from highly directed field trips, and sometimes from "discussions" that involve guessing what the teacher has in mind. The recurrent eulogizing references to democracy in this context are not only somewhat nauseating in themselves, they conjure up images of the many crimes against humankind that have been committed in the name of protecting and advancing "democracy," and in this way may have alienated many potential adherents to competency-oriented education.

Among the few partial exceptions to this rather damning picture are the writings of Barnes and her colleagues at the Lincoln School [e.g., Emily A. Barnes and Bess M. Young, *Children and Architecture* (New York: Bureau of Publications, Teachers College, 1932); James S. Tippett et al, *Curriculum Making in an Elementary School* (New York: Bureau of Publications, Teachers College, 1927)], although, even here, Arthur Bestor, ex-pupil of the school, has taken the school to task for offering courses that focused on teaching non-generalizable everyday knowledge instead of encouraging pupils to make contact with academic disciplines (or, we might add, developing high-level competencies) [*Educational Wastelands: The Retreat from Learning in Our Public Schools* (Urbana, Illinois: University of Illinois Press, 1953)]. Modern students of education are, however, unlikely even to come into contact with the more widely-oriented writing in the areas since it is not referenced, still less embedded, in more recent writings on Progressive Education [e.g., Barth, *Open Education and the American School*; Ravitch, *The Great School Wars*; and Torsten Husen and Neville Postlethwaite, eds., *International Encyclopaedia of Education*, 10 Vols (London: Pergamon, 1985)].

23. None of the teachers Bennett (*Teaching Styles and Pupil Progress*) asked to define

Progressive Education did so in terms of distinctive goals and, as is well known, Bennett subsequently concluded from his classroom observations that most "open" classrooms were a mess. The failure to articulate non-knowledge-of-content goals is well illustrated in Nell Curtis's "Boats" project (see, Tippett et al, *Curriculum Making in an Elementary School*); Cremin, *The Transformation of the School*. This would appear to have remained heavily content- and skill-oriented, with a hint of *introducing* pupils to new interests. It contains little suggestion of using interests to *foster* competencies. Dewey seems to have been content to evaluate projects designed to encourage experimentation in terms of their contribution to knowledge rather than to terms of the competencies developed in the process. Likewise, he seems to have been content if "democratic" processes were enacted in classrooms. He does not seem to have set down the competencies and understanding required for democratic functioning.

24. The Eight Year Study (See, Aikin, *The Story of the Eight Year Study*) made a pioneering attempt to tackle some of the assessment issues. However its work was not followed through and the crucial importance of assessment from the point of view of (a) enabling teachers to achieve their goals, (b) enabling students to identify the benefits, and (c) harnessing the sociological forces that determine what happens in schools through the certification process was not recognized.
25. Donald A. Schon, *Educating the Reflective Practitioner* (San Francisco: Jossey-Bass, 1987).
26. Husen and Postlethwaite, *International Encyclopaedia of Education*.
27. Robert M.W. Travers, ed., *Second Handbook of Research on Teaching* (Chicago: Rand McNally, 1973); Merlin C. Wittrock, ed., *Handbook of Research on Teaching*, 3rd ed. (New York: Macmillan, 1986).
28. Calvin W. Taylor, *All of our Children are Educationally Underprivileged* (Salt Lake City: Dept. of Psychology, University of Utah, 1971); *Talent Ignition Guide* (Salt Lake City: University of Utah and Bellvista Public School, 1976).
29. In the course of presenting in America the work that follows, I have repeatedly been accused of re-inventing the wheel. Although enough has, in reality, already been said to show that this is not the case, the point may be made more forcefully by pursuing the wheel analogy and demonstrating that the relevant wheel has never yet been assembled! Up to now, only some of its parts, often distorted or embellished beyond use, have been available. Thus, spokes of varying size and suited to different types of wheel, capable of fostering one or other of the competencies mentioned above in the course of one type of educational activity or another, can be found in Volumes 1 and 5 of the Eight Year Study [Aikin, *The Story of the Eight Year Study* and *Thirty Schools Tell Their Story*, New York: Harper, 1943]. There are a number of rims (general discussions of educational goals and processes) which might have been used to bind appropriate spokes (educational activities which would have fostered different kinds of competence) into a wheel [see, French et al, *Behavioural Goals of General Education in High School*; Education Policies Commission, *The Purposes of Education in American Democracy*; Caswell and Campbell, *Curriculum Development*; Stratemeyer, Forkner, and McKim, *Developing a Curriculum for Modern Living*] — or usable set of educational programs.

However, they have been embroidered in such a way that, if an attempt had been made to use them, they would have impeded the desired movement.

Consequently, they, like the spokes, been used as ornaments to embellish teacher-education courses rather than as integral parts of functional educational activities. There is nowhere a hub containing the tools which teachers need to identify and harness individual pupils' motives and values in such a way as to create educational programs that would lead all pupils to practice, and thereby develop, a selection of important competencies, or for them to monitor the development of all these different competencies in different children. The third volume of the Eight Year Study [Eugene R. Smith, Ralph Tyler et al, "Appraising and Recording Student Progress," in *Adventure in American Education*, Vol. 3 (New York: Harper, 1942)] contains sketches of a number of cogs (assessment procedures) that might have been developed to couple the curriculum wheel to a power unit, which would move the competency-oriented educational process forward, but the rest of the cogs and the drive shaft are missing. As a result the assessment procedures that were developed were never used to couple the educational activities to a speedometer (formative assessment and feedback process), never mind to couple an assembled wheel to a source of energy or motor. Dewey's *How We Think* and *Democracy and Education*; and George S. Counts's *Dare the Schools Build a New Social Order?* allude in passing to sources of power which might have been harnessed to drive the activity, but they never explicitly discuss the sociological forces that drive the educational system, apparently with a will (like that of the Greek Gods) of their own. They still less describe the pistons or governors that are required to harness and control those sociological forces (in the way Watt worked out how to harness escaping, scalding steam) so that they would drive the whole educational system in the direction in which everyone wants it to go.

The point of this footnote is to illustrate that there is nowhere even a sketch of the requisite wheel, let alone of its attachment to an axle and thence to a cart. Naturally there is no hint, never mind a sketch, of an automobile. The result is that, in place of Parker's, Dewey's and Barnes's vision, we now have a vista strewn with the remains of hugely expensive, failed educational reform projects, projects that have left little trace except the bad odor of their corpses and a few patches of fertile ground (see, e.g., Wright, *Core Curriculum in Public High Schools* and *Block-Time Classes*; David Whiting, ed., *Blowing on a Candle: The Flavour of Change*, Newton, Massachusetts: Newton Public Schools, 1972; Fraley, *Schooling and Innovation*). Consequently, instead of forming (as many would have hoped) the cornerstone of the Husen-Postlethwaite *International Encyclopaedia of Education*, it is not even mentioned.

It is notable that, although educators' preoccupations have, over time, oscillated between the "needs of the child," "the structure and datedness of the content to be conveyed," and "the needs of society," they have never focused squarely on the one issue that would have brought these three competing concerns together. This resolution could have been achieved by focussing on the competencies that are to be fostered in the course of education, the ways in which the competencies to be fostered need to vary among children, the processes to be used to foster the components of competence and to generate the necessary variety, and the ways in which these competencies are to be assessed. The existence of a huge blind spot in this area is also demonstrated both by the absence of any reference to relevant issues in the *International Encyclopaedia of Education* and by the fact that Bloom and his colleagues found it relatively easy to produce a taxonomy dealing with

knowledge-of-content objectives, more difficult to produce a taxonomy of objectives in the psychomotor domain, impossible to produce a taxonomy in the affective domain and never even noted the need for a taxonomy dealing with high-level competencies. (To add insult to injury, the author has repeatedly been referred to the heading "affective" in his quest for work dealing with these issues.)

30. Mathematics was not fully integrated into this scheme. However the problems which this teacher had in trying to integrate mathematics into her interdisciplinary teaching actually highlight neither deficiencies in the philosophy of interdisciplinary education, nor deficiencies in this teacher's competence, but the need to re-think radically mathematics education itself.
31. Barnes and Young, *Children and Architecture*.
32. Nell Curtis, as depicted in Lawrence A. Cremin, *The Transformation of the School* (New York: Alfred Knopf, 1961).
33. Raven, *Competence in Modern Society*.
34. Ibid.
35. The implications of this discussion for the criteria and process of program evaluation should not be overlooked. The need to index these wider outcomes makes nonsense of the Joint Committee's *Standards for the Evaluation of Educational Programmes and Projects*. See John Raven, "Some Limitation of the Standards," *Evaluation and Program Planning* 7 (1984): 363-370.
36. David G. Winter, David C. McClelland, and Abigail J. Stewart, *A New Case for the Liberal Arts* (San Francisco: Jossey-Bass, 1981).
37. Philip W. Jackson, *Life in Classrooms* (New York: Holt Rhinehart & Winston, 1968).
38. Raven, *Education, Values and Society*.
39. Raven, *Competence in Modern Society*; "The Assessment of Competencies;" "A Model of Competence, Motivation and its Assessment."
40. In clarifying the value of such assessments, one must continuously bear in mind the lack of objectivity inherent in the forms of assessment most commonly used in schools, for these regularly consign pupils to degrading lives by recording that they perform poorly on traditional tests without recording that they do other things well. There is no meaningful sense in which such assessments can be said to be "objective." What is more, these assessments also lack construct and predictive validity. See, Raven, "The Assessment of Competencies;" "Questionable Assumptions in Test Construction," *Bulletin of the International Test Commission* (Nos. 28 & 29, 1989): 67-95; "A Model of Competence, Motivation and its Assessment."