THE CRISIS IN EDUCATION

JOHN RAVEN[1]

ABSTRACT

In this article it will first be demonstrated that those who think that the educational system should be fostering the competencies which make for enterprise are correct. Thereafter we discuss the often surprising barriers which must be overcome if educational programmes which foster such qualities are to be more widely introduced.

Keywords

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[1] Correspondence: 30 Great King Street, Edinburgh EH3 6QH, Scotland, Tel ++ [44] (131) 556 2912; Fax ++ [44] (131) 556 3754; email: jraven@ednet.co.uk

EDUCATION INVOLVES FOSTERING COMPETENCIES RATHER THAN CONVEYING KNOWLEDGE

Most official documents which specify the goals of general education emphasise problem-solving ability, the ability to work with others, enterprise skills, leadership, and the ability to understand and influence what happens in society[1]. These views are echoed in surveys of the opinions of teachers, pupils, parents, employees and employers[2]. The opinions of all of these groups are supported by research into the qualities which are actually required at work and in society[3]. The qualities which have been mentioned, and others like them, have been shown to be required by machine operatives[4], navvies[5], bus drivers[6], small businessmen[7], civil servants[8], engineers[9], doctors[10], scientists[11], managers[12], and politicians[13]. They are also required to use leisure in a satisfying way[14] and if economic and social development (rather than, for example conflict) is to occur[15].

THESE GOALS ARE NEGLECTED BY SCHOOLS

Despite the demonstrated importance of fostering these competencies, values, and understandings, most schools – at least in the UK, France, Belgium, the US, and Australia – do not even attempt to foster them[16]. As a result, schools are among the least developmental institutions in our society[17]. More than two thirds of 20-year-olds say they have been better able to identify and develop their talents at work compared with school. Not only do schools generally fail to foster these qualities, many actually stifle them and foster inappropriate beliefs, understandings, and values[18]. The conclusion is that some two thirds of the money spent on secondary and third-level "education" is wasted. Nowhere in the world has efficient full-time secondary education for all been provided. Yet more than 12% of GNP is spent on this "education".

USELESS ACTIVITY IN ITSELF IS NO BAD THING

The fact that we spend so much on a useless activity is not, in itself, a bad thing: the great engines of economic development – the myths which make it possible to organise labour in productive activity – have always involved useless activities. These have included building pyramids and churches, trading in opium or gold, building nuclear "defence" systems, and developing a warehouse, transportation, banking, and accounting system which makes up two thirds of the "cost" of every article[19].

BARRIERS TO CONTINUING TO PROVIDE "USELESS" EDUCATION

There are, however, serious barriers in the way of continuing to offer a costly but useless educational system[20].

People now know that the emperor has no clothes

The first of these is that the general population is now well aware that the educational system has been unable to deliver the promised benefits: economic and social development, jobs for all, equality, and the opportunity for each pupil to identify, develop, and get recognition for, his or her talents.

The second is a corollary of the first: more and more people now appreciate that when most educationists speak of developing human potential they are either creating jobs for their colleagues or are engaging in a form of double talk which enables them to legitimise an extremely expensive system which does little more than allocate occupational position and status. (It is more accurately, but less acceptably, described by Jencks[21] as a means of legitimating the rationing of privilege".) The public knows both that emperor has no clothes and that he is not to be trusted.

The people can see the emperor's horns

The third reason why it will in future be more difficult to use "education" as a Keynesian hole-digging-and-filling operation is that many people now understand the horns of the certification dilemma. It has, on the one hand, become obvious both that examination courses do not foster many useful competencies and that examination passes do not testify to the possession of important competencies[22]. This has fuelled the vast, multi-billion dollar, international "competency-oriented education" movement which finds expression in the phrase "people should learn to do things which will be useful to them in their later lives". On the other hand, it has become clear that educational "qualifications" are used to control competition for jobs and thus create protected occupations whose members are able to command high salaries because of the "shortage" of "qualified" personnel[23]. As a result, certificates which afford entry to protected occupations have great economic value. People are therefore prepared to pay heavily for an opportunity to compete for them – especially when teachers claim to be able to help them to compete successfully. As the public has become aware of this dilemma they have demanded a more cost-effective, "no frills", educational system and emphasised the need for a single, clear, and unarguable criterion of merit for allocating position and status[24]. This has resulted in the *British National Curriculum* and common system of examinations, and in the past the closure of schools having alternative objectives.

BUT THE PEOPLE STILL "WANT" "REAL" EDUCATION

Despite these problems, many people still recognise that educational environments both could and should develop the skills and talents of those being educated. This is why many people still insist that schools should embrace more of the wider goals of general education. In our surveys[25] more than 50% of pupils wanted schools to do more to achieve 90% of the objectives we asked about.

BARRIERS TO REDEPLOYING EXISTING RESOURCES

The problem facing educational policy makers, then, is to redeploy existing resources.

But they have to do so in a situation in which there is considerable resentment at what is going on, hostility toward those responsible for administering the system and those who are likely to do well out of it, and widespread recognition that what is happening at present, while educationally unjustifiable, is nevertheless extremely important from the point of view of gaining relative social advantage. This means that teachers who are able to work the system for the benefit of their pupils will strenuously resist change. So will those pupils and parents who are doing well out of it.

If these were the only barriers to introducing a more developmental and cost-effective educational system, those interested in promoting it would have a hard enough task. But these are not the only barriers[26].

It is difficult to implement competency-oriented education in schools

One of the other barriers is that the kinds of educational programme which are required to foster qualities like the ability to make one's own observations, the ability to identify and solve problems, the ability to take initiative, and the ability to get other people to work together effectively demand educational processes which are most easily provided in homes, communities and workplaces.

The research conducted by ourselves and others in homes[27], schools[28], colleges[29], and workplaces[30] shows that, if one is to foster such qualities one must create situations in which people can practice doing these things and thus learn how to do them more effectively. Yet these are all difficult, demanding and frustrating activities. No one is going to make the effort required to practice them unless what they are doing is important to them. This not only points to the need for individualised educational programmes – individualised, that is, in relation to each pupil's values, priorities and talents – it also suggests that the tasks undertaken must be important to society.

But practise is not the only way in which qualities like initiative, adventurousness, and leadership can be developed. People can also learn from the example of others. Unfortunately, many of the role models from whom people learn – and especially teachers – portray downtrodden, ineffectual, styles of behaviour[31]. But people learn best from role models when those to whom they are exposed are gaining satisfactions which they themselves want – that is to say, when they are undertaking activities which the learner is strongly motivated to carry out. But it is not only their observable behaviour – the *results* of their thinking and planning – which it is important to see and to copy. The mental, emotional and striving processes which lie behind that behaviour are also important. So, if people are to develop the competencies which make for adventurousness, enterprise, leadership, and the willingness and the ability to understand and influence the direction in which society moves, those who are to learn to do these things must be exposed to people who already do them – and exposed to them in such a way that they can share in their thought processes, their feelings, their anticipations, and their reflection on things which have gone wrong. In this way they can learn to be sensitive to the cues which beckon and point toward an activity which is likely to pay off, which tell one when corrective action is necessary, or which tell one that things are getting out of hand and one had

better either get help or stop doing whatever one is doing. They can learn how to turn a chance observation to advantage[32].

It is because experiences gained in the course of working on tasks which are personally important and when working with other people who share one's concerns are so important that the Youth Training Scheme branch of the Manpower Services Commission (MSC) in the UK was correct when it asserted – to the annoyance of many educators[33] – that such qualities are best fostered and developed on the job. Their statement did, however, pose a fundamental problem: few British supervisors and managers think it is part of their job to think about trainees' talents and interests, to create developmental environments in which the trainee can practice and develop these qualities, or to share with their trainees their own thoughts and feelings as they carry out important tasks. Confronted with this observation, most British people exclaim "Of course not!" However, not only have researchers like Klemp, Munger, and Spencer[34] and Jaques[35] shown that the tendency to think about, place and develop the talents of subordinates is one of the competencies which distinguishes more from less effective supervisors and managers[36], our own work shows that managers in Japan and Singapore do it as a matter of course[37]. Since there is no way anyone other than supervisors and managers can provide such assistance throughout life, it follows that the target of the MSC's intervention should have been supervisors and managers, not trainees, and that educators have a crucial – if non-conventional – role to play in the process of developing the talents of supervisors and managers.

Fortunately for educators, work is not the only setting in which such qualities can be fostered. If teachers adopt such processes as interdisciplinary, competency-oriented, enquiry-based, project work grounded in the environment around the school and explicitly set out to embody the important features of work in that activity – a *real* task to do, variety, the ability to tap a wide range of alternative talents – then educational environments *can* be made more developmental[38]. In this context it is of great interest to note that more effective teachers, like more effective managers, are the ones who show a greater tendency to think about, harness, build upon, and develop the talents of their pupils[39]. They are also more likely to share their own thoughts, their own strivings, and their own feelings with them[40]. And they are the ones who demonstrate greater ability to get control over the wider social constraints *outside* the school – constraints from parents, directors of education, tests – which prevent them pursuing the educational objectives that are most widely thought to lie at the heart of education[41]. It is important to note the implications for our understanding of teacher *competence:* **unless** teachers engage in these activities *outside* their classrooms, they *cannot* do in their classrooms the very things that it is most widely agreed that it is most important that they should do – and which our studies in the workplace and society have confirmed that it is, indeed, most important for them to do. That is, *unless* they engage in these activities, they *cannot* be regarded as competent teachers.

Teachers need tools to help them to foster the components of competence

A second major barrier in the way of introducing competency-oriented education into schools is that, if teachers are to foster such qualities, they need to be able to assess each

students' concerns, interests, and talents, invent an individualised developmental programme for each student, monitor his or her reactions to those experiences, intervene to take corrective action when necessary and, at the end of this difficult and demanding process, identify the particular competencies which each student has developed in such a way that they will stand to the students' credit when the time comes to scramble for a job.

This is an extraordinarily demanding set of activities and helps to explain why it is that only about 5% of teachers undertake "project work" effectively[42].

To implement competency-oriented education effectively it is not only necessary, as Burgess and Adams[43] almost alone emphasise, to devote a great deal of time to guidance, counselling and appraisal. It is also necessary for the teachers concerned to have both a good theoretical framework to enable them to think about the talents which might be developed and the ways in which they are to be developed, and tools to help them to implement such individualised educational programmes.

Such demands may seem unrealistic. But the reality is that such diagnostic and prescriptive tools are required if teachers are to foster effectively even such fundamental competencies as the ability to read. This may strike the reader as an absurd statement – until it is acknowledged that very few children – particularly those who have learning difficulties – learn to read at school. As Tizard[44] has shown, it is parents who, in general, provide the sensitive help and encouragement which is required to enable children to find material which interests them and who provide the individualised help which is required to identify the child's specific difficulties so that remedial action can be taken. Once again, it is those teachers who have, personally, privately, and painstakingly – over perhaps 20 years – developed strategies for providing such individualised reading programmes who are the apparent exceptions to this rule[45].

Important competencies are value laden

A third barrier to wider introduction of multiple-competency-oriented educational programmes into schools is that the qualities we have been discussing are value-laden[46]. Not only will people only practice and develop these competencies in the course of pursuing goals they value, competent behaviour is dependent on having a view of society and one's role in it which leads one to feel that one has a right to ask questions, a right to expect people in authority to answer those questions, and a right to seek to influence the wider social constraints on one's behaviour[47]. Many parents, teachers, managers and politicians find this notion threatening – not least because they lack the competencies which are required to manage independent, thoughtful, people who identify and tackle their own problems.

One corollary of this observation is that much "education" is directed toward the wrong people. The most important targets for educational programmes emerge as being teachers, not pupils; managers not employees; the leaders of our society, not "the disadvantaged"; and adults not children. We can no longer lay the blame for our social and economic ills at the door of the poor and those who are least advantaged in the educational system.

A second corollary of this observation, taken together with the fact that such qualities can only be practised and developed whilst people are working toward goals they care about, is that any attempt to introduce genuinely educational programmes into schools will be met by opposition at all levels from Parent Associations (PA) upward. PA committees which aspire to influence the curriculum repeatedly dissolve in internal strife. All their members want change. But as soon as some parents start talking about encouraging question-asking, independence, initiative, or adventurousness chaos ensues. Some parents, worried that they will no longer be able to control ("manage") their children, start to raise doubts. It is then suggested that their children need not join the programmes. This in itself creates problems because it challenges deep-rooted beliefs about equality and uniformity in public provision. It is feared that the children of the best managers will, yet again, get the best deal. But, before long, a more serious objection emerges. What is being said is, not that these qualities are unimportant, but that they are *too* important. If schools helped some pupils (and not others) to develop them, those children would do better in life than the others. That would be unfair. This is one example of one of the most important dilemmas facing educators: many people want their children to obtain benefits which are more likely to be attained if they possess competencies like those we have discussed. But they often do not want their children to possess those competencies (e.g. independence), still less others (e.g. abrasiveness) which are psychologically bonded to them. They do not want their children to devote their time to their careers – or even to improving society – if this means reducing the time they spend in affiliative behaviour with their families. They do not want their children to become socially and geographically mobile – particularly if this means that they are likely to neglect them in their old age[48]. Finally, as it becomes clear that competent behaviour involves tackling some of the wider social constraints on what one can do and that encouraging pupils to tackle these constraints means influencing their beliefs about society, how it is structured, and how it should work, some parents articulate their (justifiable) fear of political brainwashing. The MSC found itself in precisely the same trap as a result of advocating that schools (through the Technical and Vocational Education Initiative) and employers (through the Youth Training Scheme) foster those qualities which make for enterprise and personal effectiveness. Finding that this led schools, colleges, and employers to encourage their trainees to consider political processes the MSC reacted by banning political education!

Neither the members of PA committees nor teachers in general are equipped to handle the tensions which stem from the value-laden nature of any education worth the name. As a result, attempts to introduce educational programmes which would foster these qualities simply die. Schools end up working toward the lowest common denominator in education i.e. "working-class values" ("sit still, do as you are told, learn what is put in front of you") and examination achievement.

Ironically, the strength of private schools is that they can avoid this dilemma, foster these more important competencies, and inculcate both values and political beliefs. Their very effectiveness in these overwhelmingly important "non-academic" areas is precisely why they are so unpopular with parents who would refuse to send their children to them even if they could.

The point is that state schools will continue to be unable to foster the qualities that it is most urgent for them to foster without radical changes in beliefs about the way public institutions should function and without better opportunities for adults to consider and resolve some of the dilemmas which have been mentioned. It follows that, if education is to be introduced into schools, adult civic education – in the sense of nurturing the competencies required to *evolve* new ways of running society (and *not* in the sense of teaching the received views of Adam Smith or Karl Marx) – is a top priority.

The need to address the problems which stem from the *transformational* nature of the educational activities which are required to foster high-level competencies

To promote the development of high-level competencies one starts by studying pupils' motives and incipient talents. One then tries to invent individualised developmental experiences which will test one's initial hypotheses about incipient interests and talents and the processes which will lead them to flower[49]. One cannot know the outcome of this process in advance. One may end up doing things which are quite different to those one initially envisaged. Unexpected talents surface and develop. In this way pupils are *transformed*[50]. All of this is fine from an educational point of view. But it is in sharp conflict with widely held beliefs about the ways in which it is appropriate to spend public money. It is generally believed that one should not take risks with such money and that contractors (teachers or researchers) should be able to specify in advance what the results of the expenditure will be. Funding an *adventure* which may (or may not) transform people or existing understandings is viewed as not merely risky: it is illegitimate. The solution to this problem has not only to do with legitimising venturesome activity in the public sector. It also involves finding ways of identifying the sorts of teachers who are able to capitalise on what they stumble across in the course of an adventure – i.e. teachers who are able to recognise the value of something they have come upon "by chance" and turn it to advantage. To do this it will be necessary to develop staff-appraisal tools which will make it possible to identify, recognise, reward, and encourage among teachers the very competencies that we are concerned with in this article.

It is necessary to certificate value-laden competencies

Another set of barriers to wider dissemination of competency-oriented educational programmes in schools stem from the fact that what happens in schools is determined, not by the wishes or priorities of ministers of education, government committees, employers, parents, teachers or pupils, or by objective employment needs, but by what is *assessed* at the point of interface between schools and society. It follows that, if schools are to foster the qualities we have been concerned with here, and, equally importantly, if employees are to be able to get credit for qualities they have developed "on the job" (or in the course of "training schemes") – and thus become able to compete for promotion with those who enter their occupations with higher "educational" "qualifications", some way of assessing these other qualities must be found.

The thought of assessing these value-laden qualities makes most people – including

myself – extremely uncomfortable. Yet I can see no other way of preventing social vandals like some of the people who currently occupy a number of the most senior positions in our public and private sector organisations getting into those positions[51]. Nor can I see any way of avoiding the problem that, at present, evaluation research, and, as a result, all subsequent discussion of its implications, tends to focus on the goals which are easily assessed and neglects the more important goals of general education. The costs of *not* developing such measures are enormous: These include inability to create developmental climates in schools, inability to develop, utilise and reward people's talents, inability to undertake useful evaluations, and inability to keep social vandals out of influential positions. Instead of resisting the development of means of assessing these qualities, therefore, we must think about how to guard against their misuse. This means ensuring that their use is publicly supervised.

The need to find ways of handling the dilemmas associated with catering for diversity

We have seen that high-level competencies can only be nurtured when people are doing things they care about and that this means tailoring developmental tasks to pupils' personal values, priorities, and motives. It is sometimes impossible for pupils to pursue goals which they care about in the same room as other pupils undertake tasks which *they* care about. For example, one cannot, in the same classroom, meet the needs of those pupils who want to develop toughness and strength and those who wish to develop the sensitivities required to learn how to set their minds to the "dreamy" state required to notice the fleeting feelings on the fringe of consciousness which form the germ of nearly all creative insights and slowly bring them to the centre of attention so that they become articulate and communicable.

This need for variety and choice conflicts with the widely accepted emphasis on equality and uniformity in public provision – uniformity which is stressed in such developments as the English National Curriculum. It is therefore essential to make explicit, and possibly challenge, the reasons for this distaste for variety in the public domain. One of its causes is the experience-based belief that such variety leads to a *hierarchy* of options – running from those which are of high quality to those which are poor – rather than to alternatives which are very different from each other, but all of which are of high quality. When the quality of provision varies only from good to bad, the more informed, articulate, and powerful tend to get the best deal. It was, indeed, to counteract just this tendency that education was brought into the public domain in the first place. If the stultifying effects of the emphasis on equality in public provision are to be reduced, it will therefore be necessary to introduce much more effective quality control mechanisms to both (I) document the personal and social, short- and long-term, consequences of each of a number of demonstrably different options, and (ii) assure the public that each option is of high quality. ("Personal and social" because what is good for the individual may be bad for society, and "short- and long-term" because what is good in the short-term may be bad in the long-term.)

If the public is to be offered a variety of options which have very different consequences and be invited to choose between them, we will need to run our society very differently. Among other things, the public service will have to: (i) invent, and provide in each community, a variety of options, and (ii) collect, and provide people with, the information they need to choose between those options.

What this means is that the public service will need to feed information *outwards* to the public, rather than upwards through bureaucratic hierarchy to elected representatives who take decisions *for* the public. This will in effect mean that the main decision makers will be the public, not elected representatives.

The task of supervising the information collected and disseminated at each level will require much greater public and media involvement. If this is to happen we will need a much more transparent public bureaucracy, changed roles for elected representatives, and changed citizenship activities. Put another way, we will need to develop new, network-based, participative (rather than representative) forms of democracy to monitor and influence the public service (The main objective of the author's *New Wealth of Nations*[52] is to discuss the nature of the new forms of bureaucracy and democracy that are required.)

It appears, therefore, that (i) fundamental research directed toward the solution of these practical problems, (ii) a wide range of development activities, and (iii) programs of adult civic education to promote the evolution of new means of managing society are unexpected pre-requisites to effective schooling. It follows that one of the first steps to be undertaken by schools is, somewhat surprisingly, to change the beliefs they lead their pupils to adopt about the procedures which are required to promote social development.

The need to come to terms with the barriers posed by the latent (sociological) functions of the educational system

Research brought together in Chapter 5 of *Managing the Educational System for Effective Schooling*[53] demonstrates that the educational system: (i) nurtures the tendency to work out which behaviour one's superiors will favour and do whatever is necessary to secure one's preferment regardless of the consequences for one's organisation or society[54], (ii) breeds that kind of facility with words that enables people to create a good impression by using fashionable phrases, (iii) advances those who are best able to do these things, (iv) squeezes out those who are most anxious to act in the long-term interests of society and those who are best able to invent new ways of thinking about and doing things, (v) selects those who are, because of personal ambition or naively, most willing and able to undertake the fraudulent "work" of modern society, and (vi) operates to perpetuate an inequitable society by legitimising the way in which privilege is rationed instead of fostering and promoting those best able to identify and introduce changes in the way society is organised.

It is therefore imperative, if change is to be introduced into the educational system, to find ways of handling these and other social forces discussed in *Managing Education*. But there is no need to despair: The problem is analogous to asking how the wind can be harnessed to drive sailing boats where we wish them to go instead of driving us against the rocks.

The need for new expectations of teachers, new structures to promote innovation, and new criteria for staff appraisal

One more, and perhaps the last, set of barriers to the dissemination of competency oriented educational programmes stems from the forms and procedures of accountability employed in the public service. At present, teachers are not really expected to pay attention to their pupils' needs and concerns and then invent better ways of meeting their needs. Rather, they are viewed as mere hired hands whose job it is to do the bidding of distant elected representatives – to whom they are accountable for little more than the petty cash.

To overcome this problem we need to develop new expectations of teachers, new criteria of accountability, new tools to help us to find out whether those criteria are being met, and new structures to promote and encourage innovation.

Expectations of Teachers

We should expect teachers to invent ways of tapping individual pupils' motives and meeting their needs. We should expect them to stimulate, and thereafter contribute to, the debates which are required to evolve new ways of thinking about society. We should expect them to contribute to the evolution of the structures which are needed to enable adults to develop the competencies which are required to manage society effectively and to enable them to help each other to develop their talents. We should expect teachers to try to influence the wider social forces (such as the expectations of parents and directors of education, and the narrow range of competencies tested by examination boards) which otherwise so much limit the competencies they are able to help their pupils to develop. We must expect them to insist on the collection of relevant information about how well their pupils are developing and how well their schools and the educational system as a whole is performing and to take the steps which are needed to ensure that good decisions are taken on the basis of that information.

Obviously no one teacher can do all of these things. But the teaching profession does need to encompass and support a significant number of people who do each of them.

Criteria of Accountability

If teachers are to do the things just mentioned they must be able to get credit for having done so. That is, the criteria against which their performance is judged must include them. The obvious difficulty of doing this leads one to tend to recoil ... until one encounters one of those elegant rare strokes of genius. Burgess and Adams have suggested that the procedures which they – together with such people as Stansbury[55] and Spencer[56] – have developed for making statements about pupils' competence be applied to teachers. Teachers would be asked to keep records of events which went well and poorly for them, what led up to them, what they did, and what the outcome was. In this way they would be able to get recognition for their concerns, talents, and accomplishments.

Structures to Promote Innovation

We have seen that the attempt to deal with the conspicuous problems of the educational system by trying to prescribe what children will learn and then find out whether

they have learnt it using centrally prescribed tests of the traditional type is misguided. We have seen that the barriers to effective education are deep-seated and non obvious, that what children need to learn to do varies markedly from pupil to pupil, that the available tests are unable to reflect the high-level competencies which students need to develop, and that our hierarchical management-system has been unable even to eliminate grossly incompetent teachers, never mind to create a ferment of innovation. Pervasive innovation in every area of the educational system is required. There is no way in which any central authority can lay down what teachers will do, never mind prescribe what individual children should learn. Instead, the task of a central authority is to create a structure and set of expectations which will: (a) lead to increasing clarity about the goals which are to be achieved and the procedures which are to be used to reach them; (b) encourage all concerned to assess whether they are achieving their goals effectively; (c) encourage them to identify the barriers to success; and (d) lead them to vigorously set about trying to do something about those barriers.

A great deal of research dealing with the arrangements that are required if we are to have both a more effective and innovative educational system and a more effective and innovative society has been brought together in *Managing Education* and *The New Wealth of Nations*. Here it is sufficient to note that the structures which are required if a more innovative and more effective educational system is to evolve must promote more contact between innovative teachers and enable them to initiate more concerted attempts to advance basic understanding of fundamental educational processes so that chronic problems can be tackled. The network of monitoring and validating groups supported by a measurement and educational research service proposed by the Irish Minister for Education's Committee on the Intermediate Certificate Examination[57] (which is in many ways similar to the framework of validating and accrediting agencies later advocated by Burgess and Adams[58]) would meet this need. It cannot be too strongly emphasised that considerable time needs to be allotted to what Kanter[59] has termed "parallel organisation" activity concerned with innovation. But this does not mean that *more* teachers are required. The data briefly summarised earlier show that, if teachers spent less time in front of their blackboards and more time managing the educational process, the benefits for pupil development would be substantial.

Monitoring Structures

To initiate an effective programme of school improvement it is not only necessary to create an innovative climate, to provide tools to enable teachers to find out on an individual and on a collective basis how they are progressing, and to implement alternative monitoring and accounting structure, it is necessary to give teeth to information. We are all too familiar with evaluations which simply gather dust. If this problem is to be tackled it will be necessary to make the work of individual administrators, teachers, schools, clusters of schools and administrative departments much more public. A network of public monitoring groups is required to examine the information collected and monitor action taken[60]. Significantly, such a network of monitoring groups would also help the public to discuss and resolve some of the dilemmas mentioned above and thus promote the evolution of new ideas about how public institutions should work. Unfortunately, one does not know many people who would voluntarily devote the necessary time to such activities. It is therefore necessary to recognise

that, just as such activities are essential to the success of commercial enterprises[61], so they are necessary for the effective operation and development of society. The implication of this is that they are truly wealth-creating activities and, as such, merit remuneration.

It is clear from these observations that one of the barriers to the evolution and diffusion of educational innovations has to do with the fact that the educational system operates in the context of a set of beliefs to the effect that it is the job of publicly elected representatives and senior management both to establish the goals of the educational system and the procedures to be used to reach them – with its corollary that the teacher's job is to carry out the activities prescribed by such authorities. These beliefs and expectations discourage teachers from studying the needs of their pupils and trying to invent better ways of meeting them. Unfortunately, these beliefs are only part of a much wider problem: In Britain and the US, since innovation is thought to be the prerogative of management, the educational systems do not have management structures which stimulate and facilitate innovation. We have already seen that the stimulation of innovation involves creating within the educational system what Kanter[62] has called "parallel organization" activity which would focus on innovation. What we are now saying is that we also need to replace our hierarchical management structures – our structures of bureaucracy and democracy – by network based management structures of the kind advocated by Toffler[63], Schon[64], and Ferguson[65]. These are fully discussed in *Managing Education* and *The New Wealth of Nations*. All that can be noted here is, first, that the failure to create an innovative educational system is not only dysfunctional in itself but also has the gravest knock-on effect on society as a whole because teachers powerfully communicate to their pupils their own beliefs about what it is important to attend to and how things should be done[66]. And, second, that what has been said implies that the areas in which research and innovation are *most* badly needed in our society do *not* have to do with finding better ways of producing goods of one kind or another but with finding better ways of running society itself. The way in which such research is to be organised is discussed in both *Managing Education* and *The New Wealth of Nations*.

SUMMARY

We may draw together some of the observations made in this article in the form of sound-bytes. The way forward in education involves:

- Moving from *content*-oriented education to *competency*-oriented education.
- Moving from a concept of education as *telling* to a concept of education as *facilitating growth.*
- Re-focusing the concept of *"learning"* away from learning-content to learning-to-lead, to invent, to put people at ease, to understand and influence organisational and societal processes.
- Recognising that nurturing generic, high-level competencies is a difficult and demanding process (and radically different from both traditional forms of education and "progressive" education).
- Recognising (and finding ways of handling) the fact that what happens in education is determined by a mutually reinforcing network of *systems* forces and processes which negate well intentioned attempts to change one of the parts (e.g. curriculum) without considering the whole.

- Recognising (and finding ways of handling) the fact that what happens in education is *mainly* determined by *sociological* forces and (mutually reinforcing) *inappropriate beliefs about how society should be run.*
- Initiating pervasive small-scale *systems-oriented* experimentation, not centrally mandated system-wide change.
- Creating a *pervasive* climate of innovation in every area of the system – facilitated by redeploying teacher-time in "parallel organisation" activity and supporting it by problem-oriented, but fundamental, research.
- Recognising that the causes of the problems are far removed from the symptoms and that "common sense" solutions will not work.
- Recognising that the most important developments are, in fact, in the research-based evolution of new arrangements for public management and, more specifically, in understandings of bureaucracy and democracy.
- Recognising that the most important *research* agenda is to contribute the concepts and tools required to evolve and run new public management organisational arrangements, job descriptions, staff-appraisal systems and so on[67].

CONCLUDING COMMENT

I have chosen to devote this article to describing some of the causes of the chronic crisis which has persisted in education for the past 40 years and to discuss the many non-obvious steps which need to be taken if that crisis is to be tackled. The suggestions which have been made in may ways contradict conventional wisdom. The philosophy of most Departments (Ministries) of Education world-wide over the past 40 years has been that if teachers were told to do things they would do them. If they did not, that demonstrated a lack of ability or goodwill. Such incompetence or insubordination, when discovered, was thought to indicate a need for more training or a harsher staff-appraisal system. Our work shows that this view is naive. The problems in education have multiple and deep-rooted causes. To overcome them we need new ways of thinking about the issues and new ways of doing things. In most cases a great deal of fundamental research is required. However, the research which is needed must be carried out in an action context and must address issues which at first sight seem far removed from the problem. It is a symptom of the deficiencies in the system we have created that neither developing better ways of thinking about things nor the execution of fundamental research in an action context (and tackling problems not immediately obvious to civil service administrators) attract funds. What Schon[68] has termed the Technical-Rational as contrasted with the Reflection-in-Action model of the professions – including education – has become deeply embedded in our thinking. Research is not seen as a route to the solution of pressing problems. Rather, in line with the educational system in general, it is seen as a route to the personal advancement of the individual concerned – and this advancement is most easily achieved by doing *pure* "academic" work which tackles problems identified in the "disciplinary" literature. The question now is: Given that taxpayers have seen through both the educational and the research rhetoric, how can a more appropriate set of expectations and structures be created? If there is a single key issue which educators need to address, this is it.

NOTES

1. HMI (1978, 1980); DES (1977, 1985); Scottish Education Department (1965); "Munn" Report (1977); MSC (1984–85); Burgess (1986); Boyer (1983); National Task Force for Economic Growth (1983); National Commission On Excellence In Education (1984); Passow, Noah, Eckstein, & Mallea (1976); Little (1983); Marimuthu (1983)
2. Bill, Trew, & Wilson (1974); Raven et al (1975a & b); Raven (1977); Morton-Williams et al (1968); MacBeath, Mearns, Thomson, & How (1981); CES (1977); Flanagan & Russ-Eft (1975); Johnston & Bachman (1976); De Landsheere (1977)
3. Raven (1984/1997); Flanagan (1976, 1978, 1983); Spencer & Spencer (1993)
4. Flanagan & Burns (1955); ITRU (1979)
5. Sykes (1969)
6. Van Beinum (1965)
7. See McClelland (1961); Burgess and Pratt (1970); Schwartz (1987).
8. Raven (1984/1997). What is most noticeable about Schwartz (1987) is that, although he was nominally studying businessmen's responsiveness to changes in their environment, their ultimate success in reaching the objectives the country (i.e. civil servants) had set for them was dependent on the quality of the judgements of civil servants – both in establishing the objectives and in correctly understanding how to manipulate prices and grants in order to get "independent entrepreneurs" to achieve these objectives. Their job is, it seems, to manage both businessmen and the economy.
9. Beuret & Webb (1983)
10. Price et al (1971)
11. Taylor & Barron (1963)
12. Klemp, Munger, & Spencer (1977)
13. Raven (1984/1997)
14. Raven, (1984/1997); Flanagan & Russ-Eft (1975)
15. Benedict (1976); Raven (1977, 1984/1997); McClelland (1961); Graham, Raven, & Smith (1987)
16. Raven (1977); HMI (1980); Raven, Johnstone, & Varley (1985); MacBeath et al (1981); Johnston (1973); Bachman, Green, & Wirtanen (1971); Flanagan (1978); Goodlad (1983)
17. Flanagan (1978); Grannis (1983); CES (1977); Raven (1977, 1980); Goodlad (1983)
18. Raven (1977); Raven et al (1985); Goodman (1962)
19. Ekins (1986)
20. This may not be true in America, where there seems to be a greater willingness ignore what is going on, both in the educational system and elsewhere. Indeed it can be argued that American schools may foster the ability to engage in the rhetoric required to justify immoral activity and in this way teach more people to "labour", in Willis's (1977) sense, more effectively than did the British schools he studied.
21. Jencks et al (1973)
22. Raven (1980); CES (1977)
23. Berg (1973); Collins (1979); Broadfoot (1979, 1983)
24. The latter is particularly clear from the conclusions of the Waddell Committee (1978). See Raven (1979, 1995) and Raven et al (1985).
25. See Raven (1977).
26. A full discussion of these barriers, the way in which they interact to form a mutually reinforcing *system* and the, often surprising, developments that are required to overcome them will be found in Raven (1994).
27. Raven (1980); Sigel (1985)
28. See Raven (1980, 1994) for summaries. But see also Jackson (1986), McClelland (1965, 1982); Raven et al (1985); Winter, McClelland, & Stewart (1981); Klemp et al (1977); Jackson (1986).

29. See especially Winter et al (1981).
30. See Raven (1984/1997); Jaques (1989); Spencer & Spencer (1993).
31. Raven & Varley (1984); Raven (1994)
32. Raven (1977, 1980, 1984/1997, 1986). This is why, as Jackson (1986), Alschuler (1973), and McClelland (1982) have shown it is so important to use literature and case study materials which portray these normally private components of competence in schools and why it is so important, as Klemp et al (1977) have shown, for superiors in the workplace to likewise make their normally private thoughts, feelings, and strivings visible to their subordinates.
33. Benn & Fairley (1986)
34. Klemp et al (1977), but see also Spencer & Spencer (1993).
35. Jaques (1989)
36. Klemp et al (1977); Spencer (1983)
37. Graham et al (1987)
38. Smith (1964, 1969); James (1968); Mason (1970); Raven (1977); Raven et al (1985). See Raven (1994) for a summary.
39. Raven et al (1985); Winter et al (1981); Schneider, Klemp, & Kastendiek (1981); Klemp et al (1980); Huff, Lake, & Schaalman (1982)
40. Raven et al (1985); Jackson (1986)
41. Raven et al (1985); Raven (1994)
42. HMI (1980)
43. Broadfoot (1986)
44. Tizard (1974); Tizard & Hughes (1984)
45. One such teacher is portrayed as "Mrs McCullen" in Raven et al (1985). Another is the author of the *Hickey Dyslexia Kit*, Better Books, Bath, 1980.
46. Raven (1977, 1981)
47. Inkeles (1969); Inkeles & Smith (1974); Raven (1984)
48. Jackson & Marsden (1962); Raven (1987)
49. Raven (1980); Raven et al (1985)
50. Bachman, O'Malley, & Johnston (1978); Jackson (1986)
51. cf. Hope (1985).
52. Raven (1995)
53. Raven (1994)
54. Hogan (1990) has noted that the available evidence suggests that about half of those managers who appear to be competent, confident, intelligent, poised, and skilled in human relations, either: i. destroy the careers of competent subordinates in order to minimise challenge and competition, ii. destroy the developmental potential of their sections (i.e. get rid of the time and the personnel required for the "parallel organisation activity" which is required for innovation and to provide for the future) in order to seem able to reduce costs and appear "efficient", or iii. refuse to take important decisions which affect the future of the organisation because these would result in their becoming unpopular and thus jeopardise their future.
55. Stansbury (1980)
56. Spencer (1983)
57. Andrews (1974)
58. Burgess & Adams (1986)
59. Kanter (1985)
60. See Raven (1984/1997, 1987).
61. Schon (1983), but see also Pratt's chapter in Burgess (1986) and Fores & Pratt (1980).
62. See Kanter (1985).
63. Toffler (1980)

64. Schon (1973)
65. Ferguson (1980)
66. The downtrodden and rather ineffectual images which teachers have of themselves are documented in Raven (1977) and the fact that these are communicated to pupils is documented in Raven et al (1984).
67. The author would welcome expressions of interest in collaborative, experimental, work in this area.
68. Schon (1987)

POVZETEK

Na koncu lahko damo nekatere skupne točke o spremembi izobraževanja. Njegov nadaljnji razvoj vključuje:

- gibanje od vsebinsko orientirane h kompetentno orientirani šoli
- gibanje od pripovedovanja do olajševanja rasti
- rekonceptualizacija učenja od učenja vsebin do učenja vodenja, inovacij, da bi ljudje razumeli in vplivali na organizacijske družbene procese
- spoznanje, da je prehranjevalna in generična dejavnost na višji ravni kompetenc je težji in zahtevnejši proces (in radikalno drugačen kot obe tradicionalni obliki izobraževanja in progresivna pedagogika)
- spoznanje (in najdenje načinov delovanja) dejstva, da to, kar se dogaja v edukaciji, določeno z vzajemno krepitvijo mreže sistemov in procesov, ki negirajo spreminjanje enega dela brez spoznanja celote
- spoznanje (in najdenje načinov delovanja) dejstva, da je to, kar se dogaja v izobraževanju najbolj določeno s sociološkimi močmi in (vzajemno opolnomočenja) navideznim verovanjem o tem, kako naj bi se družba razvijala
- spodbujanje prepričljivih majhnih scale usmerjenih sistemov eksperimentiranja ne središčno zaupano širše sistemsko spremembe
- ustvarjanje prepričljivega vzdušja inoviranja v vsakem področju sistema – olajšanega z redeploying časom učiteljev v dejavnosti paralene organizacije in njenega podpiranja pri problemsko usmerjenem osnovnem raziskovanju
- spoznanje, da so vzroki problemov daleč stran od simptomov in da skupni občutek ne bo deloval
- spoznanje, da so najpomembnejši razvoji dejansko, v temeljno raziskovalnem razvoju novih "aranžnajev" za javno upravljanje in bolj specifično, v razumevanju birokracije in demokracije
- spoznanje, da je najbolj pomembni raziskovalni načrt prispevati pojme javnega upravljanja organizacijskih načrtov, opisov dela, cenitve sistemov ekipe, itd.

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