

PARENTS, EDUCATION AND SCHOOLING

TOP

JOHN RAVEN

Overview

In this article I will summarise some research which suggests that:

- (1) The model of psychological and educational development which has informed both psychologists and educators has in the past been unduly narrow. This has been as true of the model employed by researchers as of that employed by practitioners. Only a very restricted range of potentially important input processes and outcome variables has generally been studied or considered.
- (2) On the whole, parents come closer to providing the developmental environments which are needed to promote the development of competence — even in the 3Rs — than do teachers.
- (3) There are fundamental — and previously unsuspected — barriers which prevent schools delivering education effectively.
- (4) If schools are to reach their goals effectively, it will be necessary to put in hand a great deal of applied research, which, counter to widely held beliefs about the research process, will involve a considerable amount of fundamental work.

In the course of the article I will show that most discussions of the role of parents in education have been misguided because they have been based on three ill-founded assumptions: (1) that schooling in early childhood is of fundamental importance; (2) that teachers can supply the necessary schooling; and (3) that the most important thing which parents can do is to help schools to do what they are doing. If progress is to be made it will therefore be necessary to gradually introduce radical changes into educational and psychological theorising and thinking on the one hand and into homes, schools, communities and workplaces on the other.

Sources of Data and Insights

Most of the observations to be summarised in this article come from two previous publications: *Parents, Teachers and Children* and *Opening the Primary Classroom* (Raven, 1980; Raven, Johnstone and Varley, 1985). The first of these reports our evaluation of the Lothian Region Educational Home Visiting Scheme; the second, some results from our evaluation of the links established between primary schools and agencies of non-formal

education such as Edinburgh Zoo and the Royal Scottish Museum. Both studies were supported by grants from the Scottish Education Department.

Parents Try to Foster High Level Competencies

The Lothian Region Educational Home Visiting Scheme was designed to 'emphasise the unique and irreplaceable role of the mother in promoting the educational development of her children'. Educational Home Visitors (EHVs), who are all trained teachers, visit the homes of two-three year old children for about one hour per week over some nine months and, by working with the children in the first instance, seek to encourage the mothers in activities which are believed to promote children's development, particularly cognitive development. (For details of the scheme see McCail, 1981.)

To evaluate the scheme it was necessary to clarify what the mothers' role in promoting children's development really is. At the time, there was plenty of evidence that something about the home influenced school success (e.g. Coleman, 1966; Plowden, 1966; Walker, 1976) and especially that reading to children was important. Levenstein (1975) and others (see Raven, [1981] for a review) had claimed that school performance could be markedly improved by intervention in the home. Hess and Shipman (1965) had drawn attention to a connection between discipline strategies and cognitive and moral development. Rosen and D'Andrade (1959) had shown that certain aspects of child rearing had an effect on need Achievement. And Kohn (1969) had noted that parents varied markedly from one to another in the qualities they wanted their children to develop.

Our work, together with that of Kohn (1969, 1977), Sigel (1985, 1986), Sigel and McGillicuddy (1984) and McGillicuddy-De Lisi (1982), shows that parents explicitly adopt particular child rearing practices with a view to fostering the qualities they value in their children. Sigel, Kohn *et al.* (1986), MacKinnon (1962), McClelland (1958, 1961, 1982), and Bloom (1985) have further shown that parents' beliefs about the causal connections between child rearing practices and the qualities their children develop are basically correct.

The results of this research may be indicated by discussing two groups of parents. Parents in the first group want their children to do as they are told and master school tasks that are put in front of them. They want them to value toughness and strength, dependence rather than independence, and group solidarity more than personal advancement. Parents in the second group want their children to develop independence, the confidence and the ability to

ask questions, creativity, initiative, and the confidence and the ability required to talk to adults.

The competencies valued by both these — and other — groups of parents appear to be crucial to the effective operation of society (Raven, 1977, 1984), and both groups adopt child rearing practices which seem appropriate to achieving their own goals. Nevertheless, I will, in this article, use the term '*developmental environment*' to refer to a kind of environment which parents in the second group are more likely to create. These parents try to identify the particular interests and talents of each of their children and then create situations in which their children can undertake activities they care about and, in the process, exercise and develop competencies like those mentioned above and others like the ability to invent, plan, persuade, find ways of reaching their goals, and monitor their own behaviour. These parents are much less likely than those in the first group to try to prescribe what their children will think, feel and do.

Although its significance will only become clear later, it is important to note that the wider goals of general education are commonly understood to include fostering these and similar competencies (see Johnston and Bachman, 1976; Flanagan and Russ-Eft, 1975; Flanagan, 1978; DES, 1977; MacBeath *et al.*, 1981; and Raven, 1977).

The opportunity to exercise and develop one's talents whilst undertaking tasks one cares about — and have those competencies recognised and appreciated — is one of the most important features of environments which promote personal development in homes, schools and workplaces (Flanagan, 1978; Raven, 1977, 1984; Raven, Johnstone and Varley, 1985; Klemp, Munger and Spencer, 1977; Jackson, 1986; Bachman, *et al.*, 1978).

Having set up a situation in which children can practice observing, inventing, adventuring, communicating, experimenting, and thinking whilst undertaking activities they care about, parents who create effective developmental environments intervene only occasionally. They do this sensitively when they sense an opportunity to assist their children through what Vygotsky (1978, 1981) might have termed a zone of proximal development. They help their children to conceptualise, to notice and resolve discrepancies between the expected results of their actions and the actual results, and to think about things which are not immediately present. They encourage them to think about the future and the long term personal and social consequences of their actions and to act on those insights. They share their values and their view of the world with their children. They let them know that they think it is *important* to think, invent, adventure and be in charge of one's destiny. They lead their children to become sensitive to cues which tell them that things are not working out as they had hoped, or even

that they are getting out of control and that they should therefore either stop or get help. In this way their children learn to adventure into the unknown, secure in the knowledge that they can detect when things are going wrong and that they will be able to re-gain control.

However, many parents do not engage in the behaviours just described, not because 'they do not know that it is important' to do these things, but because they do not want their children to develop qualities like adventurousness, independence, and creativity — or even curiosity or an interest in books. Many of these parents facilitate their children's growth through *alternative* 'zones of proximal development'. They lead their children to develop *different* concerns and competencies. These parents sometimes encourage their children to be sensitive to cues which indicate the need to offer emotional or economic support to relatives and friends. They sometimes foster the disposition to invent ways of putting others at ease. They sometimes teach their children how to present themselves as tough, strong, and 'macho'. They sometimes foster the ability to stick up for oneself and resolve one's own disputes — by, for example, refraining from intervening in disputes and tolerating considerable fighting, but then, if things do get out of hand, punishing all the children involved equally instead of apportioning blame.

But we also met parents who *would* have liked to foster in their children some of the more 'middle class' qualities mentioned, but still did not do so. There were several reasons for this. One was that they suffered from value conflicts: yes, they would have liked their children to be independent, but that might result in them becoming geographically mobile and neglecting them in their old age; yes, they would have liked their children to be 'bright' — but that might result in their putting on airs, getting above themselves, disowning their parents, and asking them questions which they could not answer. Other parents were prevented from fostering qualities which they valued in their children by environmental constraints: yes, they would have liked their children to be adventurous — but being adventurous in the environments in which they lived was dangerous, and anyway they did not know how to lead their children to develop the dispositions — personal monitoring behaviours — which would enable them to adventure in safety. Yes, they would have liked to spend more time with their children, but they had to devote all their available time and energy to keeping body and soul together, to defending themselves and their children against attacks from their husbands, or to getting the electricity turned back on again. Yet others would have liked to treat their children in more developmental ways, but they were isolated, tense and lonely, devoid of advice and support, and short of anyone with

whom they could discuss problems (see Burns, *et al.*, [1984] and Raven [1987] for a fuller discussion of these processes).

Although there is not space to go into it here, some readers may like to note that the first set of differences in parental values and behaviours to which we have drawn attention appear to be true cultural (socio-economic, ethnic) differences, whilst the second set are environmentally induced. This observations makes it possible to reconcile our finding that children from the same backgrounds vary greatly in the values and the competencies they wish to develop and do so in such a way that these values and competencies anticipate those which are characteristic of the socio-economic groups they will enter with Kohn's conclusion that this variance results from experience in those occupations (Kohn, 1969, 77; Burns *et al.*, 1984; Gallimore, 1985; Greeley, 1972; Raven, 1977).

Parents and Language and Cognitive Development

Because of what will later be said about schools' ineffectiveness in promoting language and cognitive development, it is particularly important to look at what parents do in this area. Relevant research has been reported by Tough (1973, 1976, 1977); Sigel (1985, 1986), Sigel and McGillicuddy-Delisi, (1984), Tizard and Hughes (1984), McClelland (1982), and Raven (1980, 1982, 1987). What this work shows is that many parents promote language development by engaging with their children in joint endeavours in the course of which they extend their children's utterances. In the course of taking the conversation forward they rephrase some of the things their children say. They incorporate some of their children's own words but also substitute some new words of appropriate difficulty so as to express the same ideas more succinctly. At the same time they improve the grammatical structure. If their children show that they do not understand what is said, they decrease its complexity. They *elicit* language from their children by watching what they are doing and listening carefully to what they are attempting to say and then creating opportunities for them to articulate and think about issues which they can barely understand and which they are having difficulty expressing.

As far as cognitive development is concerned, many parents encourage their children to make their own observations and discoveries, to think and to abstract by talking about what has happened in the past and what might happen in the future, to study the causal processes connecting one event to another, and how a desired future is to be achieved. In this way children are encouraged to think about the consequences of their thoughts and actions, resolve discrepancies between anticipated and actual consequences, and bring plans to fruition. Cognitive development is not only promoted by cognitive activity: it involves parents sharing their

feelings of delight, anticipated delight, and frustration (in both their own and their children's actions) with their children. Cognitive development is best promoted *indirectly*. One way in which this is done is by encouraging adventurousness, independence, and confidence in dealing with adults. These activities force children to make their own observations, educate concepts, study relationships, and experience the benefits of taking thought. Another is by treating children with respect and setting out to earn (as distinct from command) their respect. Such an orientation requires parents to reason with their children and discuss long term, abstract, social processes (which involve intangible variables) in order to persuade their children of the desirability of any particular course of action.

Schools Neglect these Goals

Thus far, I have reviewed material which suggests: (i) that education involves a great deal more than schooling; (ii) that parents are their children's most important educators, not in the sense that they 'school' their children, but in the sense that they deploy sensitive strategies to facilitate the development of a wide range of important motivational dispositions and components of competence (including the ability to perceive, think, read, and communicate); and (iii) that parents promote school success and cognitive development, not by doing the things which schools do, but *indirectly*, by fostering such qualities as the ability to think for oneself and confidence in dealing with adults.

I will now show that much of what happens in schools during the early years is of limited value.

Most of the time which most children spend in schools is devoted to repetitive, non-cumulative, activities (Goodlad, 1970, 1983; HMI, 1980; ORACLE; Raven Johnstone and Varley, 1985). These activities rarely involve judging, communicating, planning, or analysing. Whereas, as we have seen, parents tend to engage their children in conversations which involve thinking about and planning the future, recalling the past, and clarifying what they are good at, Tizard, *et al.* (1981), Sigel (1986) and others have shown that there is usually very little communication between teachers and pupils in nursery schools. Such teacher-pupil interaction as does occur tends to consist of teachers asking a series of fast-paced questions which are not contingent on pupils' previous utterances or behaviour — let alone on their unverballed thoughts. Parents and their children use language for many purposes — to problematise, to persuade, to think about social processes, to think about the child's and the parent's interests and feelings, to study other people's interests, feelings, thoughts, personalities, talents and reactions. All of this is typically missing from schools. The end

result is that, as Francis (1982) and I (Raven, 1984) have argued, and despite the Bullock Report (1975), the basic question of what language teaching in schools is supposed to achieve remains to be effectively addressed.

Many parents even teach reading more effectively than most teachers (Tizard, J., *et al.*, 1982; Francis 1982). Thus Francis found that parents tend to embed reading with their children in a meaningful, on-going, joint, activity. They provide different kinds of assistance depending on the child's previous experience with particular words. They vary what they do with the child's expectation of the text and with the child's (and their own) beliefs about the purpose of the reading session. When they help children to clarify meanings, they take account of the particular context in which the word is used and its function in the sentence. They relate the material they read to the child's interests. They spend a lot of time thinking about children's specific difficulties and trying to invent ways of helping them to overcome them. In contrast, infant school teachers tend not only to teach reading through a 'single best method' (instead of varying that method from child to child), they actually decline to adjust the method they use to take account of common problems. Whereas parents, in effect, encourage their children to master a series of individually paced tasks which require them to read old words in new contexts and which continuously challenge them — thereby both ensuring that the material is of interest to parent and child alike and that it relates to the child's purposes — few teachers individualise either instruction or remediation, saying that they do not have the necessary time. With a few exceptions, the emphasis in classrooms is on mechanical reading rather than on reading for understanding or to help children get the information they need to achieve goals they care about. Under these circumstances it is impossible for teachers to find out what problems individual children are having or to take appropriate remedial action. The teaching strategies most often employed by teachers do not acknowledge the lack of relationship between decoding skills on the one hand and comprehension on the other. Most teachers are amazed both by Donaldson's (1978) demonstration that children can think without using words and by Bussis' (1982) demonstration that, on the one hand, many children can decode but cannot understand either the words or the text, and, on the other, many others can understand the meaning of a passage but cannot decode the words from the letters. (This finding, incidentally, invalidates (a) many tests of 'reading ability', (b) most common-sense-based remedial strategies, and (c) widely touted commercial remedial programmes — such as those of Bereiter and Englemann [1966].) In essence, this shows that the discovery of meaning comes from educative processes which demand levels of

non-verbal analysis and synthesis which operate at a much higher level than making words out of letter sounds. Unlike teachers, parents help their children to create meaning out of buzzing confusion by helping them to recognise patterns. Unlike schools, they do not only tolerate, but actively encourage, the sub-conscious activities — the time *off* task — which is required to educe meaning out of confusion. The bottom line is that, as Hewison and Tizard (1980) have shown, unless children learn to read at home they rarely learn to read.

When it comes to writing, one again finds that, whereas teachers tend to focus on the mechanical — On the *form* of letters and the format of sentences — parents tend to encourage their children to write about things they care about. In the course of doing this, children discover the deeper structure of language. They also develop idiosyncratic ways of communicating effectively by using such devices as allusion and innuendo. (As Abelson [1981] has noted, all effective communication is dependent on evoking shared associations; no sentence ever says everything which needs to be said to convey the intended meaning.) Parents also encourage their children to write messages with a view to influencing other people. Their success or otherwise in this endeavour provides the children with feedback about the effectiveness of their strategies. In contrast, in most schools, language activities are restricted to filling in blanks in sentences or, at best, writing, very briefly, about things which are of little interest and without the benefit of feedback from seeing the effects of the action (HMI, 1980; Raven, Johnstone and Varley, 1985).

When one turns to the development of the ability to perceive and think clearly one finds that schools confer still fewer developmental benefits than they do in the areas we have so far reviewed. Whereas Chan (1981), Tough (1973), Feuerstein (1980), Vygotsky (1978, 1981) and Raven (1980) have shown that parents promote the development of the ability to perceive and think clearly by involving their children in what Feuerstein has called “mediated learning” — i.e. learning in which parents encourage their children to share in their thinking, their agonising, their planning, their delighting, their struggles with moral dilemmas, and in which they join in their children’s conceptualising, information seeking, experimenting, monitoring, anticipating, meaning-seeking, meaning-making and delighting in insights — Miller, Kohn and Schooler (1985), Sigel (1986), Stallings and Kaskowitz (1974), and Raven (1980) have shown that didactic teaching actually hinders the growth of this ability.

Given this evidence that schools rarely provide environments which are as developmental as homes, how important is it for children to get to school early? The evidence is pretty devastating:

one of the clearest findings from the IEA’s (see Walker, 1976) cross-cultural surveys was that, by the time children were 11 years old, there was little difference between school systems which recruited children at 4, 5, 6, 7, and 8 years of age.

Our conclusion to this section must, therefore, be that, while parents lay down in young children a number of vitally important motivational dispositions and foster crucial competencies — including the ability to read, think, and communicate — the widely held view that schools can do these things anything like as well as parents is without foundation. (It is interesting that a number of Americans — such as Bennett (1987) and Zigler (1987), who previously advocated early childhood schooling, as well as others like Elkind (1987), have come to the same conclusion.)

There are good, but previously unsuspected, reasons for schools’ failure

We have now seen that parents are their children’s most important educators both in the sense that they foster competencies which are much more important than those on which schools tend to concentrate and in the sense that they often achieve the goals which are usually regarded as the *raison d’etre* for schooling more effectively than do schools. I will now show, firstly, that there are hidden, and currently insurmountable, barriers to effective schooling in the early years, and, secondly, that, if these barriers are to be overcome, it will be necessary for psychologists to contribute new understandings both of the nature, development and assessment of competence and of the social processes which deflect educational institutions from their goals. Also that they will need to contribute tools to intervene in both of these processes.

Before moving on it is useful to note just how long schools have been trying to introduce genuinely developmental activities and how difficult it has proved to be for them to do so. Educators from Parker (1894), through Dewey (1902), to Plowden (1966) and HMI (1978, 1980) have enjoined schools to embrace the wider goals of general education, but have met with scant success. The explanations most commonly given for this failure are large classes and lack of time, money, resources or training. These explanations are invalid: Dewey had one adult to every four pupils in his experimental school — yet most still failed to undertake the desired activities. A small number of US school districts poured over a billion dollars, and endless time for curriculum and staff development, into trying to achieve these goals — but only about 5 per cent of the teachers undertook the requisite activities (Fraleigh, 1981). We ourselves found that even when each child had the undivided attention of a teacher, most of the teachers still did not do what many parents do as a matter of course (Raven, 1980).

Some of the reasons why teachers generally fail to foster high level competencies are nicely illustrated by the following episode from the EHV study. As part of the triangulation process we had given one of the EHV's a transcript of one of her visits. At the next meeting she declared: 'I was *devastated* by that: there I was being a *teacher* and doing all sorts of things which I would not have done as a *mother*'. Far from facilitating the child's growth (as she would have done as a mother) there she was *telling* the child what to think and do and asking 'teacherish' questions to check up on him and find out whether he knew a few arbitrary facts which she, the teacher, happened to know. Further discussion revealed a number of reasons for the EHV's' apparently inexplicable behaviour. In the first place, the EHV's said, they were paid by the Local Authority to make something happen. As a result, they could not wait — as they would have done as mothers — for the children to do something and then respond. Besides, they were only present for an hour a week and everything which needed to be done had to be squeezed into that time. Then there was the problem that they did not know the children sufficiently well to appreciate their interests and were consequently unable to harness or build on them. Nor did they know how to 'read' their innuendos and body language. As a result, they did not know how the children were reacting to what they were doing and could not take corrective action when necessary.

These comments hint at some of the non-obvious explanations for schools' failure to achieve the wider goals of general education which have come to light in the course of our work. Others will be found in Raven (1977, 1984, 1987; Raven, Johnstone and Varley, 1985) and mentioned only briefly here.

One of the most important barriers to introducing more broadly based educational programmes into schools is that no one has really clarified what the *second* 3Rs of education might be, identified the psychological nature of the qualities which are to be fostered, described how they are to be fostered, or shown how progress toward them is to be assessed for both formative and summative purposes. (Although the basis for such a framework may be discerned in the writings of Dewey [1902] and in Aiken [1942], Caswell [1942], Counts [1932], French [1957], Rugg [1926], Tippet [1927], and Bernstein [1975] this work is nowhere integrated into anything which could be described as either a system of pedagogic theory or a guide to good practice.)

Another problem emerges as soon as teachers try to work in the area: high level competencies like those discussed earlier in this article are heavily value-laden: initiative, the ability to observe, and the ability to work with others will only be displayed (and thus only be practiced and developed) when people are working toward goals

which they personally care about. This results in several difficulties: (1) there is general reluctance to allow state schools to dabble in value laden activities . . . yet, if they are to foster these — children's most important — talents they will have to do so. The solution to this problem involves providing variety and choice in state schools. But variety and choice is in conflict with equality. A pre-requisite to the introduction of developmental environments into schools therefore turns out to involve something which at first sight appears to have little to do with the problem, namely adult (civic) education designed to enable adults to evolve new ways of thinking about the way public institutions should operate. (2) Pupils can only develop qualities like the ability to observe and take initiative whilst they are working toward goals they care about. Unfortunately, teachers have neither the concepts nor the tools they need to think about the interests and motives of each child, to invent individualised, competency-oriented, educational programmes for each pupil, or to monitor their subsequent development. (And, even when they have the relevant constructs, Fraley's evidence is that the task is too difficult for most teachers unless they can be provided with the necessary tools.) (3) These qualities can only be assessed for formative and summative purposes (and so that teachers can get credit for their accomplishments) if pupils are working toward goals they care about. A value-based, rather than a value-free, psychometric paradigm is therefore required (Raven, 1977, 1984, 1988). This, too, is an anathema.

Implications for Concepts of Research and Theory

Before turning to the possible practical implications of the material we have reviewed, I would like to allude briefly to its implications for concepts of research and theory and their relationship to practice. This is because one of the editor's guiding ideas in putting together this Monograph was that 'much practice in early childhood education is a-theoretical. Psychology should and could make a considerable and beneficial impact if practical matters and attendant research issues were appropriately conceptualised and attacked'.

The material we have reviewed has not only led us to reconceptualise *education*, the developmental process, and the roles of parents and teachers, it has also suggested that the concepts of education and development employed by most psychologists and educators have been unduly narrow. Their psychometric models have not been such as would enable them to assess the wider components of competence in their research studies, let alone to develop the tools which teachers need to administer broadly based educational programmes and enable both themselves and their students to get credit for their efforts. Still less have psychologists

been inclined to study, and develop research-based theories about, the wider social and organisational processes which deflect parents and teachers from their goals.

Practical Implications: The Way Forward

We have seen that parents are their children's most important educators in ways which few schools can match: they foster vital competencies which schools neglect and they encourage the development of cognitive, communication and reading abilities in ways which are beyond the reach of most school teachers. And we have seen that there are good, if non-obvious reasons why so few schools live up to the expectations which most educationalists, teachers, parents and pupils have for them. Because most of what has been written on the role of parents in education is based on what can now be seen to be the mistaken assumption that schools are doing a good job and that what parents need to do is to assist in that process, it follows that most of what has been written on the subject is misguided.

Before we reconsider the roles of parents and schools it is necessary to consider the need for custodial care. This has actually been behind much of the demand for early childhood 'education', even though the provision which has been made often falls far short of meeting parents' or children's needs. It is unlikely that, so long as our society continues to be organised as it is, this need for day care will abate: in the United States, 65 per cent of the mothers of young children work outside the home. However, as Robertson (1985), Ekins (1986) and others have argued, the way we organise our society is not sustainable and will have to change. To create a more sustainable economy it will be necessary to establish more community-network-based provision and to develop new concepts of wealth and wealth-creation. These two changes will enable parents and other members of the community to spend more time creating wealth by fostering the competencies needed by the next generation. And they will require parents and others to play a more active part in the management of community-based provision — including educational provision.

But, before these changes are brought into being (or forced upon us) what can be done to improve the developmental quality of the environments which are provided in schools?

The answer to this question is that we need to clarify the nature of developmental environments, develop the tools needed to assess their quality, and find ways of overcoming the barriers to their introduction into schools. Thus Howard (1980 to 1982) developed indices of the quality of classroom environments and introduced network-based management structures (involving parents) of the kind that are required to give teeth to information collected using

such appraisal instruments. When seeking ways of overcoming obstacles, reference should be made to the work of Morgan (1986) who has shown how to identify feedback loops which will amplify (rather than negate) forces for change.

Another important foundation on which work to create more developmental environments in schools could be based is that of Taylor (1971, 1973, 1987) and his colleagues who have experimented with, and evaluated, ways of implementing and administering developmental programmes designed to foster 'multiple talents' (i.e. alternative competencies) in schools.

Gallimore (1985; Tharp *et al.*, 1984) and his colleagues have shown how schools can structure educational experiences in such a way as to harness the values and accepted ways of doing things which are characteristic of ethnic and cultural groups who are at present alienated from schools. In this way they have been able to introduce into schools many important features of home life.

There are actually many things which could be done to make schools more like homes. One possibility would be to introduce more parents and other adults into schools. It is important to introduce a *variety* of different sorts of people who have different occupations and values, who possess different patterns of competence, and who contribute in very different ways to society. This would provide pupils with a range of alternative role models from among whom they could choose those they found most congenial. Likewise, it would be possible for schools to utilise a range of out-of-school placements and projects for pupils so as to facilitate the development of, and lead children to respect, a wide range of competencies. (The reasons why projects should be based in the environment around the school and tackle problems which teachers do not know how to answer are discussed in Raven, Johnstone and Varley, 1985.) Raven (1977) has shown that there are many neglected motives which could be tapped by changing the way schooling is organised.

But it is not only with children that educators need to work. As we have seen, parents really *are* their children's most important educators in ways which it is virtually impossible for teachers to emulate. In the light of this observation, it would seem that the educator's role should include doing what the Lothian Educational Home Visiting scheme set out to do — namely to facilitate the growth of *parents'* competence to play their unique and irreplaceable role in promoting the development of their children. But this is not the only activity which needs to be undertaken with parents. We have seen that the introduction of more developmental environments into schools means encouraging teachers to grapple with the dilemmas involved in working in a value-laden area. This involves changing beliefs about the way the educational system

should work. Teachers therefore need to involve parents in adult civic education.

These brief comments hinting at issues which have been more fully discussed elsewhere imply that there is an urgent need to change teacher education so as to foster among teachers and future teachers the qualities which are required to facilitate pupil development, to manage parents as managers of development, and to manage the kind of community-development programmes which are needed to facilitate the growth of parents. If teachers are to work in this way, they will need to develop such competencies as the ability to anticipate and handle the political repercussions which are likely to follow the introduction of educational programmes which do such things as encourage citizens to demand their rights or which set out to create mutual support networks among marginalised parents (such as single-parents or the impoverished) with a view to enabling them to relate in more developmental ways to their children.

Research

In the course of this article, we have stumbled across a large number of topics which urgently require further research. For example, we have seen that it will be necessary to:

- Develop the understandings which are required to think about and foster multiple talents and to develop the tools which are required to administer diversified educational programmes which aim to foster different qualities in different pupils.
- Develop the concepts and tools required for policy evaluation in such a context.
- Clarify the structures, and develop the tools, which are required to provide appropriate forms of staff and organisational appraisal and accountability in a public service which is promoting innovative attempts to cater for diversity.
- Provide the data needed to resolve value-conflicts.

Finally, because the improvement of provision for early childhood education is dependent on the evolution of a new social order in which it is less important to legitimise the rationing of privilege, research is needed to contribute to the evolution of new concepts of economics, wealth, democracy, and citizenship.

But the main implication for research of what we have seen is that perceptions of research need to change. We need new understandings of the role of research in modern society, the way it should be conducted, and the criteria to be applied to research proposals and research reports. What we need is fundamental research directed toward the solution of applied problems and conducted in an action context. We need research which relates to

complex, difficult, value-laden and political issues. We need research which is adventurous and creative and which is, therefore, messy. Such criteria are hard to reconcile with the kinds of clean, small-scale, personalised, non-controversial, research favoured by most psychologists, research councils, government departments and universities. Despite these conflicts with prescriptions for the scientific process, such research would still be centrally concerned with the essential scientific task of evolving new concepts and understandings, asking new and more appropriate questions, and changing the way we think. Scientific advance does not come from non-controversial research. It comes from public argument. And, as Nisbet and Broadfoot (1980) have shown, research which makes the most significant contributions to policy improvement is research which changes the issues, re-focuses debate, and changes the questions. Government Departments are therefore wrong to think that research should answer administrators' questions and that its main function is to provide unarguable facts. Likewise, the US Joint Committee responsible for the Standards for the Evaluation of Educational Policies and Programmes (Stufflebeam, 1981) is wrong to focus on hypotheses-testing and using only reliable and valid measures. Because I have already exceeded the space allocated to me I cannot pursue these issues here and must content myself with referring readers to relevant publications in the bibliography, commenting that not all of these have been referred to in the text.

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