The Assessment of Children's Affective Characteristics

Presidential address delivered at the British Educational Research Association Twelfth Annual Conference, Bristol, 4-7 September 1986.

BRYAN DOCKRELL, *formerly Scottish Council for Research in Education*

When I returned to Scotland some 15 years ago it was pointed out to me that any public address should have a text and preferably from the bible. I do not have a text but I do have a quotation, though it is not from the bible. "We must accustom ourselves to the thought of arms. We must accustom ourselves to the sight of arms. We must accustom ourselves to the use of arms ... Bloodshed is a cleansing and sanctifying thing and a nation that regards it as the final horror has lost its manhood ... There are many things more horrible than bloodshed and slavery is one of them" (O'Casey, 1935). I am quoting that statement, not because I agree with it, but because it was attributed to a school teacher who had established a school to propagate those views and who, through a network of fellow teachers, recruited a revolutionary army that believed in bloodshed not merely as a means of achieving its aims but as something that was good in itself, was in some mystical way 'cleansing and sanctifying'.

Some of you will no doubt have recognised that as Pearce's speech quoted in O'Casey *Plough and the Stars*.

Before you dismiss those views as referring to "old unhappy far off things and battles long ago" (Wordsworth) to quote an English poet writing about Scotland, let me remind you that the Provisional IRA are so-called because they claim their authority from Pearce's Provisional Government of the Irish Republic established in 1916. That connection may sound tenuous to you but it is important to them, for it legitimises in their eyes their present killings in Britain and Ireland. The speech may have been made over 70 years ago but it still affects what happens in Britain and through the alliance of similar violent organisations, in other parts of Europe, and the Middle East and for all I know Africa and America too.

No doubt most, if not all of us, would disassociate ourselves from the methods of these organisations, whether or not we sympathise with their aims. Would any of us see it as the function of our schools to teach that "bloodshed is a cleansing and a sanctifying thing"? My preference and I expect that of most of us would be for schools to have an emphasis on peace studies, to teach ways of resolving conflict and reconciling divergent views without recourse to violence, either personal or national.

I am not however going to spend the next 20 minutes arguing the case for peace studies, rather I want to assert in the words of the Munn Report that,

> In educating young people it seems irresponsible to ignore their emotional and moral natures or to assume that the educational process should not concern itself with their attitudes and values and whatever it is within human personality that predisposes people to act in particular ways ... We believe the schools should therefore seek to contribute to the development in pupils of such dispositions as the following: to be

> concerned for other people and to show compassion for them; to be capable of cooperating and forming relationships with them; to be tolerant and fair, to respect evidence and be committed to the rational solution of problems; to be resourceful, self-reliant and hardworking; to have an open attitude to social change; to be concerned about the issues which trouble society and to ask questions about them, not in the pursuance of an easy antiestablishment line or from the secure refuge or cynicism but as a prelude to a genuine search for answers; and to respect rational authority (Consultative Committee on the Curriculum, p. 12)

or in the words of Prince Charles,

> How on earth does anyone expect anything to get done in life unless there is some effort to educate people's characters as well as their minds? How are we to have any hope of balance and civilised leadership in the future unless there are some people who have learned about service to others, about compassion, about understanding,... about courage to stand up for things that are noble, for things that are true? After all there is so much to be done in this world-so much famine exists, so much disease, so much poverty, so much conflict, bigotry and prejudice, and there are so many people who are crying out for help, for their own simple dreams to come true. (Prince Charles, p. 10)

What is strange about those statements is that in our culture there is some feelings that such matters are not the concerns of schools, that it involves 'indoctrination' or 'formation'. In this as in so many educational respects we are the odd man out. I was, several years ago now, at two meetings, one shortly after the other. At the first we were attempting to sum up the purposes of the seminar and we had some difficulty in phrasing exactly what we meant. We were incidentally looking at a system of reporting rather like the Pupils in Profile project that Trish Broadfoot and I had been working on shortly before. Finally, the recommendations of the seminar said that it was necessary to report on such a wide range of personal characteristics because of "the one-ness of things". The problem was not in agreeing the importance of the reporting system. It was in expressing in English what was perfectly obvious to everybody. Our language did not make it easy to say what everybody participating in the seminar felt to be important. Shortly afterwards I was at another meeting, this one concerned with teacher preparation. There in our final statement we began by saying that the purpose of teacher education was to prepare teachers who would be able "to develop the new Communist man". You will have no difficulty in realising that the second conference was in Eastern Europe. The first one was in India. In Hindi there was no problem in saying what had to be said. The problem was to express it in English.

Perhaps I am labouring the case. Perhaps Richard Pring's recent book *Personal and Social Education in the Curriculum* and its many distinguished predecessors, the work of Wilson and his colleagues and the recent issue of *British Journal of Educational Studies* (34(2)) which contains papers from the Annual Conference of the Standing Conference on Studies in Education have convinced us all of the importance of the affective aims of education. In her paper to the World Association for Educational Research, Professor Margaret Sutherland (1982) surveys British educational writings on the theme of the meeting, 'Personality, Education and Society'. Among other sources she looks at the publications of the Department of Education and Science and looks at the list in the DES paper *The School Curricu*lum. She comments, "There is much that is admirable in these aims but let us permit ourselves two questions. One, are the aims all compatible? Two, has an essential aim been omitted?" (p.

137). To these I would add a third. How do we see the affective aims of education being implemented by the schools?
I quoted above the statement of the Munn Committee on the importance of affective aims. However, they went on to advocate a structure of the curriculum which it seems to me failed completely to take account of the important questions they had raised. When it came to the curriculum they were concerned with subjects, language, mathematics, science and took no account of the affective dimension of education.

At the school level, Wake has recently suggested an extension of the proposals of 'Curriculum 11-16' to cover moral education. He proposes a list of questions for heads and senior staff about overall objectives, for heads of department in consultation with their colleagues about objectives, methods and content in their subject and cross curricular linking, and for head and heads of department about what knowledge skills, concepts and attitudes are necessary (Wake, 1986). There is concern. What seems to me to be lacking is research.

Of the 32 countries represented at the 8th World Congress of the World Association for Educational Research ranging alphabetically from Argentina to Zimbabwe at least 30 assumed that education had a role in the development of personality. Yet there is a marked Anglo-Saxon reluctance to be concerned with research in this area. At the last meeting of the American Educational Research Association I looked for sessions which were concerned with affective or social development. There were some in the index but none of those sessions saw affective development as anything other than a peripheral issue as it related to some more important concern. After the conference I wrote to colleagues in the United States asking to be put in touch with people working in this area and none of my contacts knew of any current work.

Now this is strange. If affective education is important and indeed inevitable, because schools intentionally or unintentionally contribute to the social and personal development of their pupils, then it should be a major item on the agenda of researchers in Britain and America as well as in 30 odd other countries in the world. Yet it does not seem to be.

Clearly what matters is what youngsters experience in school. What is included in the curriculum and what is excluded and how it is taught; the relationships among pupils and between teachers and pupils; the way the school is run; the expectations of the whole school community, whether implicit or explicit. If you like, the ethos of the school. These are the important aspects of the affective education of children and young people. Assessment however is also important. As Popham wrote in 1975, "Talk is notoriously cheap but until it is backed up with tangible techniques for promoting and measuring important kinds of learning affect, there is considerable chance that the current vocal support for affective education will fade quietly" (Popham, 1975, p. 137). Assessment is important too for what is not assessed will tend to be under-valued.

It is true as Black & Broadfoot (1984) pointed out that assessment in the affective domain is a difficult and controversial area but we could hardly claim to be researchers if we avoided a topic because it is difficult and controversial. Not of course that that was the implication of their comment. Much of the work I want to refer to from now onward was carried out in collaboration, either with Trish Broadfoot or Harry Black.

In a paper to this conference, some years ago, Harry Black and I (1980) argued that assessment contributes to education in three ways, first, by evaluation of the effectiveness, either of the system as a whole or at some point, e.g. a new instructional programme or a specific school or group of schools; secondly, by assessing the achievement of the general aims or some specific objectives of the school by individual pupils, so that appropriate remedial action may be taken; thirdly, by providing information which is of predictive value and can therefore be of help in guiding pupils. Assessment in the affective domain can be applied to each of these purposes.

The first contribution of assessment, evaluation, has been little used. At the system level Torney, Oppenheim & Farnen's (1975), *Civic Education in Ten Countries,* for example, included studies in the affective area.

In England, the assessment of affective aims by the Assessment of Performance Unit of the Department of Education and Science has not proved acceptable and little other work has been carried out in this area.

More attention has been given to the affective domain in the evaluation of new courses, especially in the area of attitudes (Harlen, 1976; Brown, 1976).

More recently SCRE has published examples of assessments of this kind which were prepared as part of the diagnostic assessment programme (Black & Dockrell, 1984). Some geography teachers wanted to evaluate the effect of their teaching on pupils attitudes to Third World countries. What they wanted was some indication of the general effects of their month long unit. Two questionnaires were therefore designed to assess change in class attitude as a result of teaching.

They were completed both at the beginning of the unit before any teaching had taken place and after it ended. The first questionnaire told the pupils to "imagine that your class has collected £20 to donate to charity. The money is to be given out in £5 units. Using the list of charities below, show how you would distribute your donations by putting one tick under each £5 opposite the charity of your choice". The charities included cancer research, sports equipment for the school, help the aged campaign, as well as a range of third world charities.

The second questionnaire was a little more complex. In this case the pupils were told that "a world banking organisation has set up a 'world cities improvement fund'. Money is to be given to projects aimed at improving 'the quality of life' in the cities of the world. Two cities are described below". One of them was called Slumsville, USA and the other Shanty Town India. There was a brief description of each of these two cities. The instructions went on "the projects listed below are designed to help the two cities, decide which projects are the most urgent then put them in order to importance in the boxes below. There were ten projects including "modernisation of old houses in Slumsville", "Clean water supplies for Shanty Town" and "restoring the ancient temples in Shanty town".

We have results from a year group of more than 200 pupils. In the case of the first questionnaire, that is the allocation of the money which they themselves had collected, the third world charities were already high. 79% of the pupils had said they would wish to contribute to health clinics for the third world before the unit was taught. That went up slightly to 85%. Fourth on the initial list was clean water with 71 % indicating a

contribution. After the unit had been taught the proportion went up to 84%. Some of the other worthy causes of course had to come down. Cancer research came down from 72% indicating a contribution to 61 %. A point of some significance may be that on both occasions only 3% would have used some of the money to buy new sports equipment for their own school.

In the case of the second questionnaire the three most popular activities before the unit had been taught were setting up health clinics in Shanty Town, providing clean water for Shanty Town and helping the Shanty Town people to build their own simple two-roomed houses. 94% of the pupils had put at least one of these among the top three in the initial questionnaire. That did go up slightly to 96%.

There was not much scope for change because the children were already sympathetic to the needs of the third world but the change that there was indicated an increase in those feelings of sympathy.

In the light of the support for Band-Aid, Sport-Aid and many similar activities you will not be surprised by these findings. It is not the findings that are significant. It is the attempt by teachers to assess the extent to which they have achieved the affective aims of their teaching. The teachers wanted to know whether pupils had changed in the ways they wanted them to change. My second point is that it is possible to devise appropriate procedures which will help teachers to get an answer to these questions. If we think it is important that schools should encourage pupils to believe that "bloodshed is a cleansing and sanctifying thing" or alternatively that it is not, we can devise procedures which will be some guide to the effectiveness of their teaching.

The second contribution of assessment is for formative purposes with a view to taking remedial action. It is different from the first in that it is very much in the hands of the individual teacher, normally in an informal way. It is difficult to know whether assessment in the affective area takes place at this level and the evidence that exists is somewhat contradictory. On one hand studies have shown that teachers value information on affective attributes of their pupils e.g. some years ago Wood & Napthali (1975) asked teachers "if you were taking over a new class, which pieces of information about pupils would you find most useful?" The constructs used most frequently were 'interest', 'class participation', 'quietness', 'confidence' and only then came 'mathematical ability'.

In the Pupils in Profile project which was one of the begetters, but not the only begetter, of the current movement towards the broader reporting of pupils attainment. Trish Broadfoot asked the teachers to express their views on the desirability of including non-cognitive characteristics in profile records. There were twelve characteristics of which more than 50% of teachers felt some note should be made. They were interest, reliability, effort, acceptance of discipline, carefulness, enterprise, co-operation, responsibility, attendance, punctuality, confidence and self-reliance.

At about the same time Raven asked a sample of Irish teachers which of a wide range of general objectives would be 'very important' for 'more academic' pupils and of the 11 considered important by more than 80% of the teachers, five were clearly affective, including the most popular "help them to develop their characters and personalities" (Raven, 1977).

From Germany, Ingenkamp (1977) at the same time, reported a study by Ulich & Mertens. Amongst elementary school teachers only 21% limited themselves to achievement when recommending for selection for secondary school. Fifty-five per cent took attitude to work into consideration and 33% took account of personal factors, such as honesty, obedience, politeness and truthfulness.

There is then considerable evidence that teachers do want to take account of pupils affective characteristics in their assessments.

The evidence that this assessment actually takes place is less clear. Indeed the only evidence seems to come from studies of reporting, such as that of Ulich & Mertens and there is not necessarily any relation between reporting and the use of assessment as a basis for remedial action.

In the Pupils in Profiles project an analysis of school recording and reporting systems showed that only half of the formal records included affective information and that usually focussed on 'diligence', 'effort', 'discipline' recorded on a five or three point scale, often simply using words like good, average and poor. The haphazard approach which appears to be typical of assessments in the affective area strongly suggests a low priority is accorded to these objectives.

Our first work in this field was when Trish Broadfoot was working with a Technical Studies Department in a Secondary School. They saw developing appropriate relationships among pupils as a significant aim for their course. They wanted to develop a systematic procedure for assessing pupil behaviour with respect to peers and teachers and to assess effort and initiative. This was the first time that we adapted Flanagan's 'Critical Incident Technique' (1955) to help teachers to improve their assessments by preparing scales for the characteristics which are behaviourally defined and where the various points in the scale are agreed by the teachers. We also conducted reliability exercises, both of inter-rater reliabilities and rater-rater reliabilities.

Harry Black has more recently carried out studies which were concerned with this issue. The finding as reported in detail elsewhere so I will only make a brief summary of the procedures and findings (Black & Dockrell, 1984).

First, each department in a school, prepared a list of pupil characteristics which they believed that they could and should assess. They were given a list derived from earlier work and a number of other sources and were asked to add to it any other characteristics they thought appropriate. The complete list was circulated to all members of the Department who were asked to tick all the characteristics thought to be relevant. A list was then prepared for each department of the approximately 20 characteristics which had the highest number of cheek marks. Some characteristics such as 'perseverance' appeared in every department's list while others such as 'stability of moods' were only chosen by two or three departments.

The departments used the list to assess on a six point scale, all pupils in their third year classes. From our analysis there emerged two main characteristics or factors which were being assessed by every department in the school, namely 'conscientiousness/perseverance' and 'confidence'. In some departments another factor also emerged which varied from department to department. We thus had for each department a short list of two or three

characteristics which seemed to represent adequately the assessments teachers actually make. In this respect our findings were very similar to those of other researchers (Airasian, Kellaghan & Madaus, 1977; Greaney, 1974; Hallworth & Morrison, 1964; Kleiter, 1973).

Our next step was to have teachers use this short list of characteristics. First to avoid merely semantic confusions, we used the technique that we have called 'crucial indices' based on Flanagan's Critical Incidents technique which I have referred to above. Each teacher independently wrote down a number of incidents which he believed were crucial indicators of the characteristics which were to be assessed in his department. Every teacher produced a total of 18 or so incidents for each characteristic, three or more illustrating the behaviour at each of six levels. All the incidents were combined into a common departmental list. There was a good deal of overlapping so no departmental list consisted of more than 30 incidents. These incidents were then put in random order and circulated to all teachers in each department. They were asked to classify each of the incidents which they found classifiable. It was necessary to repeat the whole procedure twice to fill the gaps remaining after the first attempt.

The end result was a complete list of crucial indices for each department covering the six levels for the two or in some cases, three, characteristics. The teachers then assessed the same pupils as before, only this time using the scale as defined by the crucial indices.

We believe that in this way we designed a more accurate way of assessing what teachers say should be assessed. The success of our approach is difficult to evaluate in the short-term. One would like to see teachers use the rating scales several times to give a better indication of the generalisability of the assessments. Nevertheless several points are worthy of note.

At the practical level the teachers found it difficult to set out crucial indices for the six point scale and we recommend that in future a smaller number be used. It seemed to us that five and three point scales are ruled out by the tendency to assign a large proportion to the mid-category so a four point scale would be the best solution. We would adopt this in any future work in the area.

Posing much greater theoretical problems however, is the degree of correspondence that we should anticipate among assessments. The teachers felt that the scale helped them to make more reliable assessments and on the basis of our observations we felt that the clarity of definition heightened the awareness of the teachers of what it was that they were assessing.

The whole area of teacher assessment of affective characteristics is riddled with problems and requires further study. It may be that the answer hinges either on longitudinal studies of the predictive validity of teachers assessments (Hope, 1985) or in defining an appropriate external criterion. When at the beginning of one study we suggested that the teachers assessments of pupils might be compared with the assessments of the same characteristics by parents or peers, the head teacher did not consider this to be ethical. Whether or not he was right the attitude is one that must affect future research in the area.

Another point is the acceptability of the procedure to teachers. Our collaborative research approach which involved close liaison with teachers seemed to work well, both at the practical and academic level. The teachers participating in the project have given us virtually 100% returns at every stage. They have also provided us with valuable comment at each stage of our studies.

But what of parents? In a study of teachers assessments and school reports we interviewed parents, pupils, and employers (Dockrell, 1985). We included questions about assessment in the affective domain. There were three kinds of information that parents wanted, first, information about attitudes such as effort, enterprise, interest, co-operation and so on which are related to attainment; second, information about some aspects of personality, for example, shyness or friendliness; and finally, information about behaviour, in effect conformity to school rules.

All parents wanted the last kind of information. They expected the school to contact them immediately if there were any serious problems. Most parents accepted that there would be minor issues which the schools could and should deal with adequately themselves.

Those parents who favoured the assessment of attitudes did so for several reasons. They thought that teachers assessments would help them to get to know their pupils better and that such assessment would facilitate classroom management, enabling swift, corrective, remedial action to be taken. They also thought that the development of healthy attitudes towards other people and to work is part of the teachers job. They believed too, that the assessment of attitudes would be helpful to them as parents. It would improve their knowledge of their own children by providing a different perspective on them.

Parents who were in favour of the assessment of attitudes by teachers seemed to assume that the assessment of the development of pupils attitudes could not be divorced from the process of teaching. Social education is a joint responsibility of the home and the school. Schools assessment had value because teachers have a wide experience of children and therefore a broader basis for judgement than parents. Teachers also have a professional competence in making this kind of judgement. It is significant that all of the arguments in favour of the assessment of attitudes are formative in nature, that is, to provide information to parents and teachers so that they may guide the development of children and young people. Nowhere did we find summative assessment for example, reporting for selection or references to employers, offered as a justification for the assessment of attitudes.

The minority of parents who were opposed were aware of the limited opportunities for observation provided in the classroom and in any case doubted teachers competence in this field.

Questions about the assessment of personality were put only to parents in schools using the profile assessment system and one using a derivative of it. Even in these cases where the parents were receiving such reports, it was necessary some times to prompt them by giving examples of the personality traits which were currently being assessed. The majority of the parents were in favour of the idea but there was the same polarisation of views as with attitude. The proportion in favour of assessment of personality was smaller than that in favour of assessing attitudes. The reasons for wanting these assessments were the same as with attitudes with one interesting addition. That was that a report on pupils character or personality might help the pupil to get a job. Presumably on the assumption that the report would be favourable. This is interesting in that it is the first justification offered which might be termed summative in nature. Those who were opposed to the assessments held that these aspects of personality were not promoted or developed by the school and indeed could not be.

It is clear that when parents are offered a more comprehensive reporting system than is currently the practice most of them are pleased to get it. Most parents, whether their children are attending denominational or non-denominational schools, think of the schools as partners in the total education of their children and not merely as institutions for imparting knowledge and skills.

The third use of assessment that is for prediction and guidance, is perhaps the most controversial and the one where I personally have most reservations. The affective component is little used in the process of formal certification, although in some cases, e.g. the Schools Council Integrated Science 'O'level and some CSE examinations a small proportion of the total mark is obtained from teachers judgements of affective characteristics. Yet schools manifestly do make these judgements, for testimonials, references and the completion of forms for university admission.

Furthermore, many teachers are happy to endorse this idea. When we surveyed the response of Scottish teachers to the Munn and Dunning proposals (Forsyth & Dockrell, 1979) we discovered that nearly 90% of teachers thought that comprehensive records including affective characteristics should be used for curriculum and vocational guidance and only 7% of teachers were opposed. Eighty per cent of teachers agreed that this information should be used by the schools for writing character references. Whether it should be used in any formal way was more controversial. Forty-four per cent felt that it should be included in the certificate issued by the schools, while 44% were opposed. The rest being undecided. When asked about inclusion of this material on national certificate as an endorsement made by schools, teachers responded in the same way with 40% in favour, 41 % opposed and the remainder undecided.

Cognitive predictors are so poor that it is not surprising that colleges and employers have turned to interviews, character references and occasionally tests of personality to help them improve their selection procedures. We have some evidence that "as far as vocational success is concerned, boys who succeed ... were more likely to do so by virtue of non-cognitive characteristics than of cognitive ones" (Ryrie & Weir, 1978) and at a conference last year the Personnel Manager of a large motor manufacturing concern asserted that for apprentices the correlations between school achievement and vocational success was so low that they were useless. As far as Higher Education is concerned I agree with Powell's comment "that effort should be directed to seeking good non-academic predictors if only because the chances of improving academic ones seems so poor" (Powell, 1973, p. 81).

There is some indication that teachers assessments of pupil characteristics have long term validity. An analysis of data from the Scottish Mental Survey, a longitudinal study of a sample of young people from age 11 to 27, found that teachers assessments of temperament had a significant correlation with both academic and vocational success (Hope, 1977). The traits were derived from a factor analysis of teachers assessments made at age 13. The factor structure used in this study was of a first component which reflected 'generally favourable assessments' and a second component which was interpreted as a contrast between "even-tempered plodders and pushful innovators" and a conclusion was drawn that "a boy who was given an overall favourable rating by his teacher tends to do better in his educational qualifications if he is a plodder but he does better in work-life if he is original

and confident" (Hope, p. 82). There is therefore evidence of the predictive validity of assessments of affective characteristics made by teachers.

However, to place the major emphasis, as there is a risk of doing in the current records of pupil achievement or pupil profile procedures, on the use of assessments for predictive purposes seems to me mistaken. I agree with the parents in the study I quoted above that the primary purpose of all assessment is formative and not for reporting. Assessment in the affective domain as in cognitive matters should help us to know where we are going wrong so that we may make the necessary adjustments and not simply tell us after the event where it was that we were mistaken.

It is clear that affective intentions in education are widely accepted. Yet I find myself agreeing with Ingenkamp's comment that "we have a disquieting situation in which teachers make their judgements like amateurs in the field of those objectives which are often regarded as the most important; and are subject to all those prejudices, stereo-types and distortions to which all people are exposed when they have only their common-sense to rely on" (Ingenkamp, 1977, p. 81). It seems to me that the arguments for assessment in the affective domain are clear and compelling. If we think affective aims are important then we should assess them. The objection that these assessments have so far been erratic and inadequate should simply be a spur to research.

Correspondence: Dr W. B. Dockrell, The Coach House, Carberry Road, Inveresk, Musselburgh, East Lothian, Scotland.

BIBLIOGRAPHY

AIRASIAN, P. W, KELLAGHAN, T. & MADAUS, G. F. (1977) The stability of teachers' perceptions of pupil characteristics, *Irish Journal of Education,* 11, pp. 74-84.

BLACK, H. D. & BROADFOOT, P. (1984) *Keeping Track of Teaching* (London, Routledge & Kegan Paul).

BLACK, H. D. & DOCKRELL, W. B. (1980) Assessment in the Affective Domain, *British Journal of Educational Research,* 6, pp. 197-208.

BLACK, H. D. & DOCKRELL, W. B. (1984) *Criterion Referenced Assessment in The Classroom* (Edinburgh, Scottish Council for Research in Education).

PRINCE CHARLES, H.R.H. (1986) Untitled address to a meeting on United World Colleges.

DES (1983) *Curriculum 11-16: towards a statement of entitlement* (London, DES).

DOCKRELL, W. B. (1980) Teachers assessment of their pupils' affective characteristics, *Enfance, 4/5,* pp.295-299.

DOCKRELL, W. B. (1985) Reporting assessments of pupils' attitudes and personality, International Association for Educational Assessment, Annual Conference, Oxford.

FLANAGAN, J. C., MILLER, R. B. & BURNS, R. K. (1955) *The Performance Records Manual* (Chicago, Science Research Associates).

FORSYTH, J. P. & DOCKRELL, W. B. (1979) *Curriculum and Assessment* (Edinburgh, Scottish Council for Research in Education.)

HARLEN, W. (1976) *Science 5-13: a formative evaluation* (Basingstoke, Macmillan).

HALLWORTH, H. J. & MORRISON, A. (1964) A comparison of peer and teachers ratings of pupils in a secondary modern school, *British Journal of Educational Psychology,* 34, pp. 285-291.

HOPE, K. (1977) *As Others See Us,* unpublished manuscript.

INGENKAMP, K. (1977*) Educational Assessment* (Slough, NFER).

KLEITER, E. (1973) Uber referenz interaktions und Korrelationsfehler im Lehrerurteil, *Bildung und Erzeihung,* 26, pp. 100- 1 17.

O'CASEY, S. (1935) *Complete Plays* (Basingstoke, Macmillan).

POPHAM, W. J. (1975) *Educational Evaluation* (Englewood Cliffs, N.J., Prentice Hall).

PRING, R. (1985) *Personal and Social Education in the Curriculum* (London, Hodder & Stoughton).

RAVEN, J. (1977) *Education, Values and Society* (London, Lewis).
SCOTTISH COUNCIL FOR RESEARCH IN EDUCATION (1977) *Pupils in Profile* (London, Hodder & Stoughton).
SCOTTISH EDUCATION DEPARTMENT, Consultative Committee on the Curriculum (1977) *The Structure of the Curriculum in the Third and Fourth Years of the Scottish Secondary School* (Edinburgh, HMSO).
SUTHERLAND, M. (1984) Personality, education, society in *Proceedings of the VIIIth World Congress of the World Association for Educational Research.*
TORNEY, J. V., OPPENHEIM, A. M. & FARREN, R. F. (1975) *Civic Education in Ten Countries* (Stockholm, Almqvist & Wiksell).
WAKE, R. (1986) Catholic education in school, *The Month,* 19, pp. 248-251.
WOOD, R. & NAPTHALI, W. A. (1975) Assessment in the classroom: what do teachers look for? *Educational Studies, 1,* p. 3.