Chapter 22

Teacher as Researcher

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Introduction

Despite Terry Moore's argument in chapter 1, I believe that educational theory is not theory in any grand sense – a unified explanatory system of propositions analogous to a lot of theory in the sciences. Rather, it should be seen as a critical and systematic reflection upon practice, drawing upon, certainly, theories that have been developed elsewhere, especially in the social sciences but not itself producing theories in that way. Similarly when I talk about the teacher as researcher I do not have in mind someone who conducts complex experiments with control and experimental groups and with sophisticated techniques for testing evidence and measuring results. Rather have I in mind the person who takes seriously the injunction to theorize about practice or to think systematically and critically about what he is doing. It is part of the extended professionalism that Hoyle (1976) talked about and that Peter Gordon refers to in chapter 21.

One might have a view of the teacher as a kind of technician – someone who has mastered certain skills of classroom control and who has learnt certain techniques for transmitting knowledge, skills, or habits, but who in the main is simply putting into practice ideas that have been developed elsewhere. In many respects a lot of early curriculum development was rather like that. Teams of experts formulated aims and ideas, developed material through which those ideas might be expressed and transmitted, put them to the test,

adapted them in the light of results, and then handed them over to schools. The teacher was regarded as little more than a technician – the necessary intermediary between the expert team and the ultimate recipient.

Such a view of curriculum development was found from experience to be defective in many respects. The chief defect, however, was the inadequate role assigned to the teacher. Firstly, the teacher is rarely the passive recipient of someone else's ideas. The ideas are transformed, for good or ill, by his handling of them. Secondly, no two classrooms are alike. There are too many variables – not only the personality of the teacher, but the motivation and ability of the children, the organizational structure of the school, even the physical shape of the room. The only person who can tailor the curriculum to the children is the teacher, and there is a limit to the value of research or development conducted by other people elsewhere. If the teacher is to be intelligent about what he is doing then he must rely on research – careful and systematic observation guided by tentative hypothesis and inspired by some vision of what it should all add up to. But that research must be his because he alone has access to the appropriate information and data. What others say in the light of their experience is frequently helpful, but it always needs to be put to the test by oneself in one's own situation. What works for one person may not work for another.

There are, however, clearly problems apart from the sheer practical ones of time (or lack of it) for doing this sort of systematic reflection. I want very briefly to indicate what those are and then to suggest possible ways in which the teacher might adopt a more research-type role.

Objectivity

Central to research is an attempt to provide a more objective basis for one's judgments, and thereby to overcome the rather impressionistic, untested, sometimes almost whimsical way, in which so often one makes practical decisions and judgments. But objectivity in research is usually achieved through experiments which can be carefully observed and noted and which can be repeated by fellow researchers in

order to check the experimenter's claims. Surely the privacy of the classroom and the transience of classroom events prevents anything but personal, impressionistic assessments of what has happened and quick, intuitive judgments about how one ought to respond. The teacher, it would seem, is more like the artist making quick intuitive judgments on the basis of past ill-defined experience than the systematic experimenter and researcher.

One way of achieving objectivity, of course, would seem to be the adoption of an objectives model of curriculum planning. On this view one carefully and narrowly defines one's objectives so that one might test the pupils' performances to see if those objectives have been achieved. The objectivity would lie in the test procedures whereby the achievements can be tested, measured, and shown to others for confirmation.

The difficulties in the objectives model were pointed out in chapter 16. One relevant criticism for my present purposes is that whether or not the objectives are achieved is by no means the only relevant curriculum consideration. A student of biology might attain all the objectives set (the assessment would show the 100 per cent success of the teacher's efforts) but he might in the process have been so bored with biology as to resolve never to engage in its study again. Any account or evaluation of the teaching that omitted such information would be far from adequate. Hence, I am reluctant to limit objectivity in research to measuring one's performance against preconceived objectives.

Being objective is contrasted not with being incorrect. One can be objective but wrong, just as one can be true but subjective. Rather is it concerned with taking steps to overcome the arbitrariness or whimsy or prejudice or strong feelings that often colour the judgments one makes. Being objective is to open to public scrutiny the basis upon which one's judgments are made – so that counter evidence and contrary arguments might, if they exist, be levelled against what one says. I may be correct in declaring at the end of a lesson that things went well, but my judgment is subjective in so far as there is no evidence against which another might test the truth of what I say. A school or a teacher to be objective would need to give an account of what happens in such a way that

1 one would know what would count as a critical test of one's account;

2 one takes steps to see if one's account can withstand the critical test.

Being objective about one's teaching performance requires, therefore, two things:

1 the development of habits of self-criticism which for many are acquired very painfully (we spend more time defending what we are doing than criticizing it or looking for shortcomings); and

2 the adoption of particular techniques for identifying the problems, putting tentative solutions to the test, and exposing to the criticism of others the conclusions that one has reached.

Habits of self criticism

Such habits are difficult to acquire because our natural tendency is to defend and to promote what we are doing rather than to find faults in it. One reason for this, of course, is lack of personal confidence, even security. It is not easy to be exposed to the critical gaze of one's colleagues, especially if one has one eye on promotion. It is the good side of oneself that one wants to show off, not the blemishes and the failings. Hence, a usual condition for greater objectivity is the establishment of a supportive framework within the school for self-criticism. Secondly, since objectivity lies in the exposure to public scrutiny and confirmation of what otherwise would be but a private unsubstantiated judgment, it would be necessary to create a framework for interpersonal criticism. The lone researcher is a contradiction. Rather should the school or college be a research community in which inter-subjective criticism and constant adaptation in the light of such criticism are encouraged and provided for.

Practical steps

1 Framework for joint self-examination and criticism:

(a) If a school or college is to be seen as a research community then the framework for this in regular meetings needs to be formalized. There ought to be time set aside on a regular basis in which problems are identified, tentative solutions are suggested, ways of putting them to the test are developed, and the resulting evidence scrutinized.
(b) One obstacle for shared examination of a problem is the lack of shared understandings reflected in the different ways in which teachers understand particular educational labels. In the Ford Teaching Project, some teachers saw themselves to be mainly formal in the methods they adopted, others informal. Upon investigation and discussion some formal teachers found that they were less formal than the so-called 'informal' ones, and vice versa. School-based research would require the gradual development through regular meetings and discussion of an agreed way of giving an account of classroom activity.

2 Action research:

The chief problem is how to get the information or data upon which the teachers can systematically work. Rather crudely, one might say that what one observes will depend very largely on what one is looking for, and this in turn will depend on the 'theory' one takes into the classroom and the 'instruments' through which the information is obtained. Hence, there are two important aspects of classroom research. Firstly, careful formulation of hypotheses can be put to the test. Secondly, there are the test procedures themselves.

(a) Hypothesis: Since one's observations are 'theory laden' it is important to formulate more explicitly the hunches or hypotheses that one is putting to the test. Thus one might be concerned about the problem of initiating classroom discussion and one might hypothesize that a different way of organizing the classroom will encourage wider participation. Remember, however, that hypotheses need to be sufficiently clear and precise that they can be tested, even if (because of the complexity of teaching – there are so many variables) either holding them or rejecting them is rather provisional and tentative. An example of such a research approach is taken from the Ford Teaching Project (1975a, pp. 10–12):

'In order to cut out "the guessing game" and move from a formal to an informal pattern teachers may have to refrain from the following acts:

(i) *Changing Topic*

Hypothesis: When teachers change the topic under discussion they may prevent pupils from expressing and developing their own ideas, since pupils tend to interpret such interventions as attempts to get conformity to a particular line of reasoning.

(ii) *Positive reinforcers*

Hypothesis: Utterances like 'good', 'interesting', 'right' in response to ideas expressed can prevent the expression and discussion of alternative ideas, since pupils tend to interpret them as attempts to legitimate the development of some ideas rather than others.'

(b) Test Procedures: There are so many different ways in which one might make one's observations and put the hypothesis to the test. Here are but a few suggestions. Remember, however, that we are talking about test procedures in a much looser sense than would be accepted in the physical sciences. There can be only so much precision as the subject of study permits.

(i) *Interactive analysis schedule.* There are schedules for putting into specific categories the teacher/pupil interactions that occur. There are limitations to the value of these (they may omit important interactions of the non-verbal kind) but they do at least provide evidence of such things as the amount the teacher talks as opposed to the pupil and such self-knowledge might easily surprise, leading to a change in teaching style.

(ii) *Participant observer.* Our problem is of course that of being more or less objective rather than being either objective or not. Simply having someone else in the room to observe, make notes, and report back on what he has seen makes the situation more objective than otherwise for there is now another person who, on the basis of the same evidence, is able to challenge the teacher's interpretation of events. If you like, team teaching provides greater opportunity for being objective than does class teaching.

(iii) *Recording.* The tape recorder, again, has its limitations

but it provides evidence against which one might test out one's interpretation of what happened. Video-tapes would be even better, but generally speaking these are impractical. Good examples of how tape recordings of lessons might be used are to be found in Barnes, Britton and Rosen (1969).

(iv) *First hand reports.* Although there are limitations to one's own reports on what one does, it would be very silly to discount these. But memory often does not serve one well, and certainly it becomes clouded and distorted by subsequent events. I have now started to keep a daily record of my teaching experience so that there is more detailed information than there otherwise would be when, in future, decisions are being made about course improvement.

(v) *Others' perceptions.* Often one believes that a lesson has been well prepared and presented, that the materials are interesting, and that it has been well received. But the truth of such beliefs depends on how the learner sees one's lesson, and the test of the value of one's lesson therefore must lie partly in the reported perceptions of the learners. Hence, a teacher researcher would seek out the learner's perceptions of the teaching. (One should, of course, extend this to other teachers' perceptions of those changes in school organization and policy that affect teaching: for example, unstreaming; and often a school or departmental head might think what he is doing is for the good but has not found out how the teachers perceive it, even though their perceptions must affect the changes.) One way of finding this out is to ask them, possibly via a third person, possibly via questionnaire, possibly on tape. This can be revealing, as the following extract from the Ford Teaching Project (1975a) shows.

Interviewer: There was a time when he said he was making a guess and he asked you if you agreed whether it was a reasonable guess. I don't know if you remember that?
Pupils: Yes.
Interviewer: And one person said yes and everybody else kept quiet. Now what I want to know is whether the person said yes really did agree with him or just said yes because they thought he wanted them to say yes, and why everybody else kept quiet?

Pupil: Well he would have liked us to say yes, really, 'cause I mean you could see it.
Pupil: If you'd said no you'd waste time arguing wouldn't you.
Pupil: Yeh, if you ever say no he'll stand there and just keep on and on.
Pupil: He'll keep on till you come to his way of thinking.
Pupil: So it's best to say yes to start with.
Interviewer: So even if you did disagree when he said 'Do you all agree' you wouldn't.
Pupil: If you said no he'd keep on to you until you said yes.

It is important to remember that such reports are not sacrosanct. The learner might have a chip on his shoulder or might be in a bad mood, and such factors, about which the teacher can do nothing, would colour how he perceives things. Such reports are but further evidence to be taken into account.

(vi) *Triangulation.* The Ford Teaching Project developed what they called the triangulation technique. Roughly, this involved three accounts of a tape-recorded lesson – the teacher's, the pupils', and the independent observer. Each account was tested out against (1) the tape recorded evidence, and (2) the others' accounts. The result was that each account was modified in the process. It would, of course, be quite easy to try this out in seminars (for example, the seminar on the teacher as researcher) before one implements it in the more difficult territory of the classroom.

Educational theory

The relation between theory and practice, as described by Terry Moore in chapter 1, on the whole commends itself to 'theorists' rather than to 'practitioners'. Somehow the theory rarely generates the practical prescriptions that it would if it were a genuinely 'practical theory'. And this should make us question this particular 'theory' of theory and practice.

Firstly, how specific do conclusions of the theory have to be before they qualify as a practical prescription? To someone practising, a practical prescription would be of the kind

'in class x at time y you should do z if you want to achieve w'. But so called practical theories in education never entail that kind of proposition. Hence, in what sense are they practical? Simply to advocate (as a result of the theory) 'discovery methods' or a combination of 'traditional' or 'progressive' styles, is not being practical – it is much too vague for that. Hence, the disillusion that teachers feel about theory as described by Terry Moore. Secondly, there are good reasons why such theory cannot produce the practical prescriptions that a practical theory would need. Practical situations have too many variable, if not unique, features thereby avoiding capture within an all-embracing theory. No theory can be a substitute for the teacher doing his own theorizing – a distinction I shall explain below. Thirdly, a theory whether scientific or practical would have to be sufficiently 'controversial' for it to exclude certain beliefs or practices and sufficiently precise for one to know what these excluded beliefs or practices are. A theory that accommodates almost anything isn't at all helpful; nor is one that is so vaguely expressed that one cannot tell when it is falsified. Terry Moore's general theories aren't, then, genuine theories – especially when we are told that they can both co-exist in practice. By reason of their all-embracing nature, their blurred theoretical edges, and their mutual compatibility, nothing is excluded and hence they can offer no practical prescriptions.

Does this mean that there is no place for educational theory? Far from it. But one needs to distinguish between theory and theorizing. Theorizing can (and in my opinion should) be seen as the systematic and critical reflection upon practice. As Terry Moore rightly points out, theoretical considerations are embedded in practice – beliefs about the physical and social world, about the value of what one is doing, about one's own teaching skills and capacity. Such beliefs and assumptions are not part of *a* theory, but they are all open to analysis, scrutiny, and criticism. Such systematic and critical examination will involve philosophizing, appealing to evidence, reference to (non-educational) theories. But there is no reason for saying that it will all add up to *a theory*. Educational studies, therefore, should be concerned with helping the practitioner to theorize (think more systematically, critically, and intelligently) about his or her practice.

This will involve being more philosophical, psychological, and sociological in one's approach than hitherto. But it will not involve having *an* educational theory.

In a nutshell, there are two contrasting approaches to educational studies: one goes from theory to practice; the other goes from practice to theory – thereby altering the practice that embodies theory. In the first case, there is a mistaken tendency to seek a coherent and unified view – such unification being the chief function of theory. In the second case, there are many different kinds of theoretical questions that can be asked about practice without the need to construct from them *an* educational theory.

Further reading

Eric Hoyle (1976) explains his notion of 'extended professionalism'. Stenhouse (1975, chapter 10) concerns itself with the teacher as researcher, and my paper is very much indebted to that.

A very good, but very difficult, philosophical account of objectivity is by Hamlyn (1970, pp. 136–47, 1972).

I have frequently referred to the Ford Teaching Project, whose director is John Elliott. An account of the project and of action-research techniques can be found in Elliott and Adelman (1973, 1976) and Elliott (1976). Useful articles by teachers engaged in research into their own teaching are: Cooper and Ebbutt (1974) and Bowen and others (1975). An account and examples of interaction analysis schedules are to be found in Stenhouse (1975, chapter 10). A brief interesting account of classroom research is Hamilton and Delamont (1974). But I am a little sceptical about the value of such research when it is conducted by professional researchers rather than by the teachers it is meant to serve – hence, the importance I have attached to the teacher as researcher. Barnes, Britton, and Rosen (1969) gives examples of tape recordings of teaching which help change the teachers' views of what they are doing and achieving.