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WAYS OF THINKING ABOUT EFFECTIVE TEACHING

Effective teaching can be defined as teaching that successfully achieves the learning by students intended by the teacher. In essence, there are two simple elements to effective teaching:

- _ The teacher must have a clear idea of what learning is to be fostered.
- _ A learning experience is set up and delivered that achieves this.

Over the years, thinking about effective teaching has been approached in a number of different ways. Until the 1960s, research on effective teaching was largely dominated by attempts to identify attributes of teachers, such as personality traits, sex, age, knowledge and training, which might have a bearing on their effectiveness. Overall, the five most frequently reported were (in order of frequency):

- _ personality and will
- _ intelligence
- _ sympathy and tact
- _ open-mindedness
- _ a sense of humour.

Since the 1960s, however, research on effective teaching has focused fairly and squarely on activities in the classroom, and in particular the interaction between the teacher and pupils. Moreover, since the 1990s, increasing attention has been paid, firstly, to establishing a research evidence base for effective classroom practices and using this to underpin the initial and continuing professional development of teachers, and, secondly, to gaining a deeper understanding of the teaching and learning that takes place in the classroom. As a result, there is now a good consensus regarding the basic framework for our thinking about effective teaching, within which we can make a useful distinction between three main classes of variables.

Context variables refer to all those characteristics of the context of the learning activity, usually a classroom-based lesson, which may have some bearing on the success of the learning activity.

Process variables refer to what actually goes on in the classroom, and deals with the perceptions, strategies and behaviour of the teacher and pupils, and characteristics of the learning tasks and activities themselves, and how these interact with each other.

Such variables include:
__teacher's enthusiasm
__clarity of explanations
__use of questions
__use of praise and criticism
__management strategies
__disciplinary techniques
__classroom climate
__organisation of the lesson
__suitability of learning tasks
__type of feedback pupils receive
__pupil involvement in the lesson
__pupil-initiated interaction with the teacher

Product variables refer to all those educational outcomes that are desired by teachers and that have formed a basis of teachers' planning of lessons and the criteria they used or others use to judge effectiveness. The most important educational outcomes for pupils would appear to be:

_ increased knowledge and skills
_ increased interest in the subject or topic
_ increased intellectual motivation
_ increased academic self-confi dence and self-esteem
_ increased autonomy
_ increased social development.

Many of these outcomes can be measured by tests, but others are often based on subjective forms of assessment, such as the teacher's opinion. Unfortunately, the methods used to measure these outcomes can often be very problematic, and may need to be treated with caution.

This overall framework of *Context–Process –Product* has provided the basis for almost all research on effective teaching reported over the last few decades (Borich, 2007; Muijs and Reynolds, 2005; Ornstein and Lasley, 2004). Such research has raised a number of important points concerning both our understanding of these three classes of variables and how research can provide evidence of the contribution made to effectiveness by different aspects of the teaching situation.

In considering context variables, it is clear that there are a vast number of aspects to the context of a teaching situation that may have a bearing on its success. The variety of ways in which these aspects can be combined to defi ne a particular context in detail is enormous. The context for teaching in schools can range from a lesson based of adding small numbers for a mixed-ability class of fi ve-year-old pupils in a small rural primary school to a lesson on electrolysis for a top-ability group of 16-year-old pupils doing science in a large urban secondary school. A major task facing a teacher is in deciding which aspects of the context need to be taken into account when considering the appropriate learning activity. Clearly, the variety of teaching contexts creates problems for research. Firstly, it means that each study undertaken can only take account of a few aspects of the context at any one time. Secondly, the infl uence of one variable on effectiveness may depend on which other variables are also present. Thus, for example, size of school may have a different effect in an affl uent community than in a community containing much poverty.

In considering process variables, again it is clear that there are a large number of aspects of classroom activities that may well be related to effectiveness. In addition, a number of problems have been posed for researchers in considering how best to identify, monitor and record the various aspects of teacher and pupil behaviour and the learning activities. The use of questionnaires, interviews and classroom observation all have research problems associated with them that require great

caution in the interpretation of the data collected. This can infuriate educational policy makers who often want simple and clear answers to the questions they pose about the effectiveness of teachers and teaching methods. Nevertheless, the wealth of studies of effective teaching conducted over the last few decades have now clarifi ed the basic nature of the manyprocess variables involved in teaching, ranging from very discrete observable behaviours (such as the frequency with which teachers use praise) to more global and more subjectively assessed qualities (such as classroom ethos).

Such research has emphasised the importance of looking at the meaning of classroom activities for pupils and teachers. Attention has been focused on looking at how teachers and pupils view each other's behaviour and the activities in hand, and the infl uence this has on determining whether effective teaching occurs.

The goals of effective teaching may emphasise *cognitive* (intellectual) aspects of learning or *affective* (social, emotional and attitudinal) aspects of learning; they may emphasise short-term goals (achievable by the end of a lesson) or long-term goals (achievable at the end of a course or even later). They may be amenable to objective monitoring and assessment or they may involve subjective monitoring and assessment – if assessment is possible at all.

In considering educational outcomes, there is a further difficulty. We must take account of the fact that teachers almost invariably appear to teach with a combination of outcomes in mind. Moreover, this combination of outcomes will vary from lesson to lesson, and indeed within a lesson itself it may vary with respect to each pupil in the class. For example, in dealing with one pupil's answer to a question, the teacher may take into account that pupil's lack of self-confidence, and thus may behave towards that pupil quite differently than towards another pupil giving a similar answer. An observer may find such apparent inconsistency in the teacher's behaviour hard to understand.

The difficulty of translating educational aims into product variables has led many research studies to focus on the most easily accessible, reliable and widely respected measures of educational attainment, namely standardised attainment tests and national examinations. Such a development has thus fostered and reinforced the assumption that the most important educational outcomes are those of intellectual attainment as displayed in such tests and examinations. Not only is such an assumption out of keeping with the professed educational objectives of many teachers, but it also offers greater academic credibility to such tests and examinations than they actually deserve.

Standardised subject attainment tests, for example, are actually suspect as indicators of effective teaching. They are designed to test progress in a particular subject area, but since pupils will not have covered the same material at the same time and in the same depth, there will be large differences between pupils that have little to do with the quality of the teaching. Another major shortcoming of such tests is that some teachers are adept at teaching for the test, by paying close attention to the type and nature of the questions and the mark schemes used and by giving regular practice with similar test material. This can infl ate pupils' attainment marks above their real underlying level of understanding and competence in the subject.

National examinations are also suspect as a measure of effective teaching in that attainment in national examinations is infl uenced by school and teacher policies regarding which courses are offered, how pupils are selected for courses and examination entry, bodies. There can also be a mismatch between the teacher's own view of effectiveness and what the examinations measure. For example, a teacher may feel that one of the main educational outcomes of teaching science is that pupils should develop a good understanding of the nature of scientific experiment. As the same time, the examination adopted by the school may give little credit for such understanding, but instead emphasise more factual knowledge. As a result, all teachers are constrained to make a compromise between what they feel are the key educational outcomes they wish to foster and the outcomes expected by others who have a stake in the proceedings.

In considering the relationship between the notion of effective teaching and product variables, it is also important to note that researchers have used a variety of similar and overlapping terms to describe teachers, such as 'the good teacher', 'the successful teacher', 'the teacher I like best' and 'the teacher I learn most from'. Each

of these terms means something slightly different, so one needs to be cautious in grouping the results of such studies together.

Overall, the picture that has emerged is that pupils view a good teacher as someone who:

- _ creates a well-ordered learning environment
- _ explains the work you have to do and helps you with it
- _ is friendly and supportive.

In addition, good teachers are often described by pupils as making use of a variety of teaching methods and learning activities, using a range of skills to maintain pupils' interest and to diffuse discipline problems quickly, and managing the lessons so pupils are kept engaged in what the teachers want them to do.

At this point, we need to make a clear distinction between 'effective teaching' and the other similar terms in common use. The essence of effective teaching lies very much

in terms of whether the teaching is actually delivering the intended outcomes. Effective teaching implies identifying what actually works as indicated by outcomes. The notion of effective teaching derives from a psychological perspective on thinking about teaching, where the emphasis is placed on identifying observable behaviour in the classroom that can be linked to observable outcomes. In contrast, terms like 'good', 'liked' and 'preferred' teaching place emphasis on how an observer feels about the teaching and usually focuses on qualities and characteristics of teaching that the observer feels are desirable without necessarily any direct reference to outcomes.