Effective teaching

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EFFECTIVE TEACHING

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Socrates	I will try and explain to you what excellent teaching is. What do you say to this answer ? *Excellent teaching is that which produces learning and understanding.* Will you be satisfied with it ?
Meno:	It is such a simple answer.
Socrates:	You have my answer, and if I am wrong, your business is to take up the argument and refute me.

<div align="right">(adapted from Murray: 1994, 380)</div>

Introduction

In this paper I intend to support the hypothetical statement attributed to Socrates in Murray's (1994) article, namely that *'Excellent teaching is that which produces learning and understanding.'* If I am wrong in what I say it is your business to take up the argument and refute me.

I plan to present to you some of the existing evidence concerning the key features of effective teaching. I will draw mainly on the results of what was termed process-product research in the 1960s, 1970s and early 1980s (Needels and Gage: 1991), but I will also examine some of the more recent thinking which goes beyond the process-product paradigm.

I will also reveal my own fears that certain of our contemporary classroom practices actually cause the learning problems experienced by some students.

When I began to research this paper I scanned the library shelves for texts dealing with all aspects of teaching. Some interesting titles came to hand. There was the extremely pessimistic title *Nobody can teach anyone anything* (Wees: 1971). Then I located titles with a note of challenge: *Teaching is tough* (Cruickshank: 1980), *Daring to be a teacher* (Richardson: 1990) and *Teaching as a subversive activity* (Postman and Weingartner: 1980). I also found *The competent teacher* (Edgar: 1974). I could not find *The incompetent teacher*. Perhaps it has not been written yet. Or perhaps the book is easier to lose than the real thing! I did, however, find *Why teachers fail* by John Lembo (1971); and later in the paper I will build upon Lembo's notion that students' learning problems are often the result of inappropriate teaching.

Lembo (1971, 7) says, 'While there are many complex factors, physical, psychological, economic and sociological, which account for each child's school performance, the basic cause of failure is the schooling process itself. Students do not enter school as failures; when students 'fail' it is the practices which teachers and administrators individually and collectively employ that are at fault'... (and) ... 'unless the classroom teacher's policies and practices are viewed as the most significant conditions in determining the direction and quality of classroom learning, and unless attempts at improving classroom learning focus on the formulation of more effective teaching policies and practices, there will be no significant reduction in the number of students who year after year become alienated from the educational process'.

What Has Research Said About Effective Teaching ?

Much of the evidence concerning effective teaching practices comes from research which involved direct observation in classrooms. Moment-by-moment actions and reactions of teachers and students were observed and recorded, particularly in basic academic subjects such as reading and mathematics. Measures of teacher behaviour were then correlated with students' learning outcomes as measured by attainment tests. Researchers were focusing on what teachers did that made a difference in what students learned.

Although some aspects of the process-product research have been criticised (eg. Bezzina: 1986), the general findings concerning what makes an 'effective teacher' are sound; and they tend to be confirmed by students' own perceptions of effective teachers (Batten, Marland and Khamis: 1993). It is clear that students themselves agree with the proposition that excellent teaching is that which produces learning and understanding.

Studies of exemplary teachers (eg. Tobin and Fraser: 1991) have indicated that although expert teachers differ in their actual style of teaching and management, they all tend to use strategies which maximise student time-on-task, encourage active participation, ensure that students understand the work and that they can perform at high levels of success. They also create a positive and very supportive classroom environment.

It can be firmly concluded from research that teacher behaviour in classrooms is positively related to student achievement (Creemers: 1994). Teachers who help students to be successful in basic academic skills such as reading, writing and mathematics, tend to exhibit a particular set of characteristics within their general approach to teaching. For reviews of the research you are directed to Holton: 1980, Rosenshine: 1986, Rosenshine and Stevens: 1986, Yates: 1988, Kindsvatter, Wilen and Ishler: 1992, Creemers: 1994, Westwood: 1995, and Rosenshine: 1995.

The research suggests that effective teachers:
• have well-managed classrooms where students have the maximum opportunity to learn
• maintain an academic focus
• have high, rather than low, expectations of what students can be helped to achieve
• are business-like and work-oriented
• show enthusiasm
• use strategies to keep students on task and productive
• impose structure on the content to be covered
• present new material in a step-by-step manner
• employ direct (explicit) teaching procedures
• use clear instructions and explanations
• use a variety of teaching styles and resources
• frequently demonstrate appropriate task-approach strategies
• monitor closely what students are doing
• adjust instruction to individual needs and re-teach where necessary
• provide frequent feedback to students
• use high rates of questioning, to motivate students and to check for   understanding.

It is sometimes stated that what is described in the effective teaching literature is a behaviourist position, -- the teacher does something, the student responds, is in some way rewarded or reinforced, and learning takes place. This is a very narrow and inaccurate interpretation of the work of the effective classroom teacher. Learning and teaching quite obviously involve reciprocal and dynamic interactions between teachers and learners. Van Kraayenoord and Elkins (1994) have commented that when teaching is viewed as an interactive process, the teacher is sensitive to the characteristics of the students and uses a wide variety of techniques.

There is also a tendency to picture the stereotypical 'direct teacher' described in the effective teaching research as one who is authoritarian and dehumanised. This is not the case at all. Rather than being a clinical form of teaching, effective teaching is carried out in an environment of cooperation and trust. Research has indicated that effective teachers are actually warm, concerned and flexible in their general approach to students (Kindsvatter, Wilen and Ishler: 1992). This is also reflected in the comments made by students themselves. Notice in the following list that students are very conscious of both the pedagogical skills of good teachers and their empathic and caring characteristics.

According to Batten, Marland and Khamis (1993), students in Australian schools describe a 'good' teacher in the following terms.

A good teacher:

• helps you with your work
• explains well so you can understand
• is friendly and easy to get on with
• is fair and straightforward
• makes lessons enjoyable
• cares about you; is always ready to listen; understands you
• has a sense of humour
• controls the class well
• knows what he or she is talking about.

It is beyond the scope of this paper to explore in detail each of these characteristics of effective teaching. The importance of many of the items in the list is, in any case, self-evident. I will return to four important factors in a moment.

Meanwhile, those of you who would wish to examine strategies for classroom management and increasing on-task behaviour, or who wish to investigate teacher enthusiasm and teacher expectancy in more detail, I refer you to the latest edition of *Looking in classrooms* by Good and Brophy (1994). In my view this is the best text ever written for teachers who wish to reflect upon and improve their own classroom practices.

Also useful for providing a balanced and informative overview of effective teaching are *Dynamics of effective teaching* (1992) by Kindsvatter, Wilen and Ishler, and *Learning and teaching: research-based methods* (1989) by Kauchak and Eggen. We do, indeed, know a great deal about effective teaching. Why do we tend to ignore it ?

What I find most perplexing about teacher education in Australia, -- and in the past twenty-two years I have worked in three colleges of advanced education and one university, -- is the reluctance of many staff in departments of methodology and practice even to refer to the body of knowledge relating to teacher effectiveness, let alone recommend that student teachers actually employ the basic principles in their own work. So steeped are we in our belief that young children can and must learn for themselves (constructivism) that we do little more in some early childhood teacher education courses than suggest establishing stimulating and supportive environments and immersing children in them. It is fortunate indeed that most student teachers acquire some actual teaching techniques from the experienced teachers who supervise their school practices.

Constructivists, or more precisely 'social constructivists', need to recognise that while learners do indeed develop knowledge through exploration, discovery, talking with and observing others, the role of the teacher must still be a very active one (Harris and Graham: 1996). In recent years Vygotsky's (1962) 'zone theory' of learning and development has received renewed attention. Vygotsky suggests that learning proceeds most efficiently when children are exposed to teaching within their 'zone of proximal (or potential) development'. This zone represents the range of knowledge and skills that the students are not quite able to learn on their own but can learn quite easily with explicit help from the teacher. Well directed, explicit teaching, contributes very significantly to the learning which takes place within each child's zone of proximal development. It seems to me that this explicit teaching role is not made clear enough to early childhood teachers in their initial training.

To redress the balance a little, I wish to focus on four of the more important teaching behaviours embodied within the effective teaching model. They represent teaching skills which are crucial for preventing confusion and learning failure in young students.

I will explore with you the vital importance of clear presentations and explanations, effective questioning, the teaching of task-approach strategies; and I will also address the more complex issue of adjusting instruction to individual differences.

Some Selected Features Of Effective Teaching

Presentations and explanations

Presenting information to children and providing explanations are two of the main activities in which teachers engage. In a recent methodology text titled *Explaining,* Wragg and Brown (1993, 3) define successful explaining as 'giving understanding to another'. I stress here 'successful' explaining, as it is clear that a great deal of unsuccessful explaining also takes place in some classrooms. According to a study by Smith and Meux (1962; cited in Wragg and Brown: 1993), it appears that the greatest source of confusion in children is lack of precision in teachers' explanations. It is extremely easy to create learning problems by poor presentation of information and garbled explanations. Effective teaching requires, above all else, clarity in presentation and explanation. Teachers striving for maximum efficiency in their daily work need to attend closely to issues of clarity. One of the most self-revealing activities teachers can engage in is to record on audio-tape an entire lesson and later appraise the quality and clarity of their own communication.

In describing the behaviour of what he terms 'clear teachers,' Eric Sotto (1994) indicates that clarity involves:

∞ knowing your subject
∞ being able to see to the heart of the matter
∞ being able to see the matter from a learner's perspective
   and
∞ the ability to explain things in simple terms.

Expert teachers who obtain consistently good results from students in their classes are reported to incorporate the following features within their lessons (Bush and Kincer: 1993):

• efficient initial presentations of new work
• clear and precise instructions
• a greater variety of ways of explaining topics
• more frequent reviews and revision of work.

Poor explanations usually get learners confused and therefore create learning problems. This occurs through lack of clarity, use of complex terminology, failure to draw analogies or give examples to which the learner can relate, and presenting too much material at one time.

Teachers' presentations and explanations can be analysed to reveal important dimensions of clarity and accuracy, organisation, language level, richness of examples or analogies relevant to the listener, use of pictures, diagrams or other support material, and sensitivity to the listener's reactions. Many of these elements appear in classroom observation schedules, such as the recent *International Classroom Observation System* (ICOS), for rating teacher effectiveness (Schaffer, Nesselrodt and Stringfield: 1994).

According to Wragg and Brown (1993), explaining should not be a one-way process. A good explanation also embodies questions to the listener to ensure that what is being said is making sense; and students should be encouraged to ask the teacher questions during an explanation. Perhaps the least helpful question for a teacher to ask, but one that is frequently heard, is 'Do you all understand that?' Johnson (1982,13) says of this particular question, 'Few students, especially those with a lack of confidence or those not doing well, are going to confess in front of the entire class that they don't understand'. Students who need most help often are the least likely to seek assistance, especially once they have been in school long enough to learn

that asking questions sometimes yields teacher criticism for not having listened (Good and Brophy: 1994).

Of course, high quality explanations are not restricted to the teacher's domain. Children can and do explain things to one another in class. Sometimes they do this very effectively indeed because they are able to empathise with a fellow learner at a similar stage of development and use just the right language or examples to make a point clear. I still remember being taught how to carry out the long division algorithm by the boy I was sitting next to in primary maths class. He was for me a much more effective communicator, and much less threatening, than the class teacher. The fact that I can still remember this incident fifty years later must say something about the impact and quality of peer tutoring.

Explaining a concept to another child, serves two important functions. The first is that the child practises clear communication and thinks about the audience, even if this is only one person. The second is that explaining to someone else can often clarify your own ideas, or reveal what you do not yourself fully understand (Wragg and Brown: 1993). According to the mathematician and educator Richard Skemp (1989), from the student's perspective there is no better way of improving one's own understanding of curriculum content than by having to explain it to someone else.

The value of student-to-student explanation strongly supports the notion that collaborative and cooperative work in the classroom is an essential part of effective teaching and learning. Group work certainly increases the opportunity for productive discussion among students, which is something known to facilitate learning. It also supports the value of peer and cross-age tutoring as a classroom organisational strategy. These less-formal practices are often thought not to be compatible with the effective teaching model. This is quite untrue.

Questioning
Kauchak and Eggen (1989) state that questioning is the most widely used strategy in classroom, and questioning is used to instruct and motivate learners and to diagnose their learning.

Effective teaching must involve careful attention to classroom questioning. According to Wasserman (1992), asking the right questions is 'the essence of good teaching'. A sound guiding principle for all teachers was provided by Clopton (1992, 30) when he wrote, *'Ask questions that build confidence'*.

Research on teachers' use of questioning indicates a connection between higher achievement and the types of questions asked (Brophy and Good: 1986. Cole and Chan: 1987). Teachers in classes showing the highest achievements were found to ask many questions during their lessons, but fewer questions that yielded incorrect responses, or no response, from the children.

It has been demonstrated that children with poor learning skills seem to benefit from instruction which includes a high percentage of simple direct questions, focusing on the core content of the lesson (Brophy and Good: 1986). It is as if answering these questions helps to firm up a student's grasp of the topic. These core questions are referred to as 'lower-order questions', and it has been suggested that about eighty percent of classroom questions should be of this type. Cole and Chan (1987) indicate that if students are struggling to assimilate

basic facts, then it is usually necessary to ask more questions from the lower-order category. On the other hand, if the development of critical thinking skills is the target, then more higher-order questions are necessary. However, it is interesting to note that lower-order questions have also been found to result in gains in higher-order outcomes and should certainly be used to advantage, even with the most able students (Good and Brophy: 1994).

Another aspect of questioning which has been examined is the phenomenon of what is called 'wait time'. Rowe (1978, 1986) analysed audio-tapes of lessons and discovered that teachers often asked between three and five questions a minute, but allowed only a second or so for a child to respond before asking someone else, or providing the answer themselves. When teachers deliberately extended their wait time to 3 seconds or more when they asked a question *and* after a student's response the following things occurred:

- the length of the student's response increased
- the number of responses increased
- failure to respond at all decreased
- confidence appeared to increase
- the incidence of speculative thinking increased
- more child-to-child interaction occurred
- children made more inferences and presented more evidence in support of what they said
- the number of questions asked by students increased
- contributions from slower students increased
- disciplinary problems decreased.

In addition to not giving students time to think or respond, some other common errors in questioning include:

- asking too many difficult or poorly expressed questions
- continuing to ask questions even though the students have indicated lack of knowledge on the topic
- taking answers only from students who volunteer
- not providing feedback on incorrect or inappropriate responses.

The use of questioning is not necessarily the best way of *introducing* a new topic to a class, although many teachers would defend this procedure by saying that they want to find out what the students know already. Questioning on material already taught or explained is a very appropriate classroom procedure. Asking questions without prior explanation or instruction can sometimes appear to the students to be lacking in purpose. Students may feel that it has more to do with unfairly 'testing' them, rather than teaching them. Gall (1984, 42) has written, '*Students need to think of an answer before they can put it into words. To generate the covert response, students must have relevant information stored in memory or available in curriculum materials, and they must possess appropriate cognitive abilities for manipulating this information*'.

We need to avoid the situation described by Brown and Wragg (1993, 3) where a five-year-old girl returned from her first day at school and announced that her teacher was no good because she didn't know anything. When asked why she thought that, she replied, '*The teacher just kept on asking* us *things*'.

According to Cole and Chan (1987), questions should be used for the following purposes:

- to facilitate communication
- to focus attention on key aspects of a topic
- to evaluate students' understanding
- to review essential content
- to stimulate particular types of thinking
- to control the group and hold attention.

Let us now turn to the issue of teaching students how to go about their learning with maximum efficiency.

Teaching Task-Approach Strategies

Perhaps the most important discovery to be made since research has moved beyond the simple process-product paradigm is that students can be helped to become more efficient in their learning. Effective instruction must include a focus on teaching students efficient ways of approaching the tasks they are set. This is of particular importance for students with learning problems, who commonly exhibit poor or inefficient learning styles (Ashman and Conway: 1989. Cole and Chan: 1990. Graham, Harris and Reid: 1992. Westwood: 1993).

When introducing new tasks, the teacher who says to the class '*Watch me carefully, and listen to what I say to myself as I do this'* is much more likely to be paving the way to successful first attempts by the students than is the teacher who says, '*See if you can work this out for yourself'*, -- often an invitation to failure and confusion for students lacking in confidence and independent learning skills. One of the ways in which we can improve learning outcomes for students at risk of failure is to become much more efficient in our presentation and modelling of task-approach strategies.

In task-approach strategy training students are explicitly taught, usually via clear modelling, demonstration and *'thinking aloud'* by the teacher, precisely how to go about such tasks as identifying a printed word not known instantly by sight, reading a page from the textbook and making a summary of the key points, planning and composing ideas for a piece of writing, solving a mathematics word problem, or researching a topic for a special project.

Usually the teaching of a strategy includes some element of metacognitive training, in which the students think about their own thinking in relation to the task at hand, and begin to develop useful self-monitoring and self-correcting skills. In other words, in efficient teaching, we devote much more time than usual to thinking about the actual *processes* involved in completing classroom tasks, as well as having regard for the quality of the product.

Frequently, in less than effective teaching, we assume that students have these skills, or will develop them incidentally while undertaking set work. To avoid placing some students immediately in a failure situation, it is much more beneficial to teach them first *how* to do the work. Bechtol and Sorenson (1993) have even devised what they term a *'Learning how to learn'* curriculum, designed to provide students with a sound foundation which will enable them to become confident and independent learners later. Those of you who have been around long enough will remember that Dennis Stott (1972) was concerned with precisely the same need when he produced the *Flying Start: Learning-to-learn kit.*

If you wish to find out more about strategy training with particular reference to students with learning difficulties, I direct you to Cole and Chan (1990) *Methods and strategies for special education,* and to Ashman and Conway (1989) *Cognitive strategies for special education.* A brief but useful summary is also provided by van Kraayenoord and Elkins (1994) in the book *Educating children with special needs.* The topic of process-based instruction for all children is well presented in Ashman and Conway (1992) *Using cognitive methods in the classroom.*

Adapting instruction
The fourth and final component of effective teaching that I wish to discuss is that of responding to differences among students. This is sometimes referred to as *'teaching adaptively'.*

Adaptive instruction is defined as instruction geared to the characteristics and needs of individual students (Creemer: 1994). Research seems to indicate that, when skilfully implemented, adaptive instruction improves student learning (Waxman, Wang, Anderson and Walberg: 1985).

Perhaps the most extreme form of adaptation to differences among students is reflected in moves toward individualised programming. Certainly in the past a great deal has been written about the need to cater for individual differences among students by providing each child with his or her own program and allowing students to learn at their own preferred rates. At one stage this model was almost held up as the ideal, with computer-aided instruction as being one possible way to achieve it.

Recent thinking suggests that any extreme form of individual programming is a very difficult and possibly discriminatory approach to take. One must certainly question whether any extreme form of individualised programming, with children all doing quite different work, is compatible with our current notion of 'inclusive' practice. Contemporary views on social justice and equality of opportunity leads some writers to suggest that *all* students have the right to be exposed to the mainstream curriculum in a reasonably unadulterated form (Ainscow and Muncey: 1990).

As Brandt (1992) has pointed out, the flaw in programs of individualisation is that students get further and further apart, not closer, in their attainments. Individualisation to this degree tends to exaggerate and maintain differences among students, not close the gap. It was also recognised by many teachers that the trite comment that '*a child must be allowed to learn at his or her own rate*' is nonsense if a child is progressing much more slowly and inefficiently than is necessary. For some students it is essential that teachers intervene to accelerate the student's rate of learning. Active and explicit instruction from the teacher has this advantage (Good and Brophy: 1994).

There may be very sound reasons for individualised programs at times for students of very high ability or for those with severe and multiple disabilities. However, rather than looking to complicated individualised programming to improve learning outcomes for students with mild learning problems, it is more useful to consider how whole-class teaching, combined with appropriate and flexible grouping and inclusive practices, can be made more adaptive to individual needs.
In Britain the term *'differentiation'* is now used to convey the idea of adapting instruction (Quicke: 1995). I notice that the same term has replaced *'adaptive instruction'* in the most recent edition of *Looking in Classrooms* (Good and Brophy: 1994).

Stradling, Saunders and Weston (1991, 9) have indicated that differentiation can be realised through teaching the same curriculum content to all pupils, but tailoring the teaching approaches and classroom processes to the different learning needs of individual students. Wherever possible, this is regarded as preferable to setting up alternative courses, creating special classes, or streaming students by ability.

For the past five years, teachers in Britain have been coming to terms with the need to implement a new National Curriculum, and at the same time, to ensure that virtually all students are able to access the broad, balanced program that this curriculum represents. Adapting, or differentiating, instruction seemed to be the only way to go. To this end, Ann Lewis (1992) identified eleven ways in which useful differentiation might occur:

- **curriculum content changed**:
  This may also involve the design of different curriculum materials and resources. The content in the program may be reduced or simplified. The common objection to curriculum adaptation is that some students may experience only a 'watered-down' and potentially inferior version of mainstream work (Dyer: 1991). A positive outcome may be that the students with learning difficulties receive an alternative program which is real and relevant to their needs (Westwood: 1993. Fuchs and Fuchs: 1995).

- **drawing upon students' interests:**
  This is said to be particularly important for poorly motivated students. As a process, it is easier to implement in the early school years but much more difficult in the upper years where curriculum content is most clearly prescribed.

- **pace:**
  This means
  - (i)   allowing some students more time to complete core work,
  - (ii)   to provide for extension activities for others, and
  - (iii)   sometimes involves teaching certain groups at a very brisk pace
    to accelerate the learning rate of low achievers.

- **level:**
  All students study the same topic but the teacher sets different degrees of complexity in what students are asked to do. This notion is well illustrated by McGrath and Noble (1993) in their chapter titled *Twelve ways for children to work on the same topic at different levels.*

- **access:**
  Allowing students different pathways into a topic. For example, using computer presentation or audio or video-tape to provide non-text coverage; providing apparatus or pictorial resources for some students to use. Also allowing for peer or teacher-aide assistance.

- **response mode:**
  For example, this might involve allowing some students to use a scribe, or to tape-record answers; using multiple choice tests or pictorial work-sheets rather than long essay formats.

- **sequence**:
  This involves changing the order in which sub-topics are presented. Again, this is easiest with young children.

- **structure:**
  All students work on the same topic but the teacher provides step-by-step coverage for some students while others progress more independently.

- **teacher time:**
  The teacher will devote more (or less) attention to individual students during the lesson and in follow-up.

- **teaching style:**
  This involves varying the way in which topics are presented. A useful chapter on varying teaching styles and learning styles can be found in Bechtol and Sorenson (1993).

- **grouping:**
  Using one's knowledge of student characteristics and needs to establish flexible grouping to achieve specific outcomes.

It is implied, of course, that these strategies for differentiation be used in various combinations for maximum value. For example, the grouping of students within the classroom is one obvious organisational strategy which will facilitate some degree of adaptation. But to make grouping truly effective it is also necessary to have differentiated curriculum materials available (Creemers: 1994).

Effective teachers already do much to adapt the processes of instruction while lessons are in progress (Westwood: 1993). For example, the following tactics are frequently observed:
The teacher:

- simplifies and restates instructions for some children
- re-teaches, or provides an additional demonstration
- gives more descriptive praise to certain students
- praises some students more frequently
- rewards different students in different ways
- sets shorter-term goals for some students
- monitors some students more closely than others
- provides more (or less) assistance to students as they work
- moves the seating position of one student during a lesson
- accepts different quantities and qualities of book work
- asks questions of different degrees of complexity.

No one suggests that adapting curricula and instruction to individual needs is easy. However, effective teaching does require that teachers recognise different aptitudes and learning needs in any group of students. As Wang (1992, 1) suggests, '*Creating effective, practical school learning environments that are responsive to the diverse needs of students has been a continuing challenge in school reform efforts'*.

Let me now return to Lembo's (1971) fear that it is what schools and teachers do or don't do that has the potential to create failure in students. I must add that I do not subscribe to all of Lembo's suggested solutions; and here I will present mine rather than his.

Some Doubts and Concerns About Current Methods

Ten years ago, Turney (1984, 200) commented, '*In contemporary books on teaching, strategies such as drill, practice, revision and review are seldom mentioned, let alone advocated. Over the past decade or so it has become unfashionable and even undesirable to see these procedures as part of the modern classroom with its stress on pupil inquiry, discovery learning, discussion and creativity*'. Ten years down the track the same comment could be made now.

It is my belief that our contemporary approaches to teaching the basic academic subjects such as reading, writing and mathematics place too much responsibility on the learner to teach himself or herself when given mainly support and encouragement by the teacher, rather than explicit instruction. Preschool and junior primary teachers often remark that some young children seem to lack even the most basic of what Hallahan and Kauffman (1994) refer to as '*essential pre-academic skills'*, such as attending behaviour, following instructions, self-management, and self-direction. Such children are ill served by classrooms providing only immersion-type early education. As I have already indicated, there is a real need to teach some children how to learn in school environments. There is obviously also a need to teach them directly the skills which teachers are suggesting they lack !

Some educators object to the very notion of conveying information to learners by actually '*telling'* them something (Sotto: 1994). 'Real' learning, they say, is never a matter of listening to a teacher but rather discovering truth for oneself. Yet Yates (1988, 8) has so rightly commented, '*Requiring a child to discover his or her way toward a basic knowledge of numeracy and literacy is to confront that child with tasks of immense difficulty. On the other hand, exposure to good direct teaching will enable the child to develop a more substantial knowledge base.*'

Joyce and Weil (1986, 440) recognise that some learners are marginalised when faced with classroom methods from which they don't seem to benefit. They say, '*Marginality is a condition that exists when a learner has difficulty relating to an educational environment and profiting from it'*. In this situation, negative outcomes in terms of loss of self-esteem and poor motivation commonly occur.

Kameenui (1993) reminds us that since we already acknowledge the diversity which exists within any group of young learners it should follow that we employ different teaching approaches to accommodate the learning needs of different children. Some children need to be taught explicitly the simple knowledge and skills acquired easily by other children through incidental learning. This is particularly important in key areas such as literacy and numeracy, where some children appear to benefit most from direct teaching (Thompson: 1992). Yet, in this country, '*whole language'*, with its major reduction in direct teaching, is presented as if it is the one method which will suit all children and cure all ills (Bartolome: 1994). I fear that '*process maths'* is similarly regarded by many as a '*one-size-fits-all'* approach which may place at risk those students who require well-structured programs and direct teaching.

I have found that a number of my colleagues who are extreme advocates of whole language, claim vehemently that they do encourage their student teachers to embed explicit teaching within their whole language programs. For example, they say they do encourage them to teach decoding skills to children who need them, and to teach spelling and comprehension skills, and so on. Yet, the student teachers do not seem to receive this message. When they come to me later to study special education they state that they were actively dissuaded from directly teaching these very things. I have heard this comment so many times that I am deeply concerned about what we are currently telling our beginning teachers.

What Influences Teachers' Practices ?

In order to address the issue of influencing teachers' practices, we need to consider first their views on what causes educational failure. Stadling et al (1991) highlight the difference between teachers who perceive the problem in education to be *'students failing schools'* and those who recognise that *'schools fail students'*. It should be noted that the perspective which blames the student identifies factors largely beyond the teacher's control as causal factors. The perspective that blames the school situation for failure identifies factors which are open to change.

The *'students failing school'* notion is really the well-known *'deficit model'* revisited. The blame for school failure is placed firmly at the victim's door, with such factors as low intelligence, poor school attendance, poor motivation, deficient basic skills, low parental expectations, and social disadvantage being cited as the causes of the failure. The perspective which focuses on schools failing students, identifies such factors as irrelevant school curriculum, inappropriate teaching methods, large classes, and inadequate diagnosis of individual needs. This viewpoint is upheld by van Kraayenoord and Elkins (1994) who identify teaching, the curriculum and teacher expectations as causal factors in some cases of learning difficulty.

Stradling et al (1991) go on to list the separate within-school factors which, coupled with a student's cumulative experience of failure and frustration, may contribute to learning difficulties, low achievement and reluctance to learn. The list includes:

• teachers' low expectations
• individual learning needs and difficulties not recognised
• inadequate monitoring and record keeping
• lack of short-term learning goals
• irrelevant course content
• teaching methods insufficiently stimulating or too rigid
• frequent changes of teacher
• in high schools, too many different teachers, too many subjects.

None of the factors in the list above are 'beyond fixing'. Indeed, they are much more readily modified than are the innate characteristics of learners. If effective teaching to reduce failure is to increase in schools, teachers must surely recognise the power of good quality instruction. For example, in connection with early intervention programs for literacy improvement, it has been clearly demonstrated that the power of excellent teaching easily compensates for homes that offer no support (Hiebert and Taylor: 1994). Yet, disadvantage and poor support from

home have been two key factors frequently blamed for learning failure under the old deficit model.

To strike an optimistic note, Anderson and Burns (1989, 8) remark that, 'While changing the basic characteristics or qualities of teachers may be quite difficult, changing teachers' strategies, practices or behaviours relative to teaching may be somewhat easier'. There is clear evidence that, as a result of training in explicit teaching principles, teachers can indeed become more effective, -- with improved student achievement as the outcome (Needels and Gage: 1991).

In the final section of this paper I want to return to the 'bigger picture' of the effective teacher.

Beyond the Process-Product Paradigm
Skilled teachers have something else of importance that sets them apart from less successful teachers. That something appears to be a positive rapport with, and genuine respect for, the students they teach (Agne, Greenwood and Miller: 1994. Duffy: 1990). Effective teachers blend their instructional skills with a more personalised and responsive approach to their students. Effective teaching combines human relations skills, judgment, intuition, knowledge of subject matter, and understanding of learning into one unified act, resulting in improved learning for students (Kauchak and Eggen: 1989).

To be an effective teacher takes much more than technical knowledge about instructional procedures. A sound theory of instruction is of no value without the ability to get on well with students and develop a close rapport (Ainscow and Tweddle: 1979). The importance of the relationship between students and teachers for effective learning is developed well by Salzberger-Wittenberg (1983) in the book *'The emotional experience of learning and teaching.'*

Seaberg (1974) regards *'relating to students'* as one of the four essential 'faces' of teaching. The other faces being:
'mediation':   carrying the curriculum to the learner
'diagnosis':   being sensitive to what a learner is achieving and needing,
and *'choreography'*:   the artistry involved in bringing together all the elements of successful teaching and learning. I will take this theme of choreography and artistry as they apply to skilled teaching as my final point.

My original search of the library shelves revealed something else to me. A number of writers were not really sure whether teaching is an art, a craft or a science. As I looked along the shelves I found *Teaching as a lively art* by Marjorie Spock (1978) and *The art of teaching* by Gilbert Highet (1951). I found Holton (1980, 207) defining the *'art of teaching'* as being *'the imaginative application of knowledge'*. I found *Teaching as a moral craft* by Alan Tom (1984), who also described teaching as an *'applied science'*. B.F.Skinner (1968,38) made his contribution by referring to *'the science of learning and the art of teaching'*. In fact, of course, teaching is clearly both an art and a science; and as Wright (1989) points out in the book *Good morning class, I love you.,* it takes many years to acquire the insights and skills that also make teaching a respected craft.

[NOTE: Most of the material in this paper was first presented by the writer as the keynote address at the Australian Association of Special Education (NW Regional Branch NSW) Conference, University of New England, Armidale: June 1995].

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