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**PREPARING  
FOR  
INCLUSIVE EDUCATION  
THROUGH  
EFFECTIVE TEACHING**

A thesis  
submitted in fulfilment  
of the requirements for the Degree  
of  
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by  
DON F. BROWN

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## **ABSTRACT**

This thesis synthesizes developmental trends toward a more democratic and equitable education system in New Zealand. It traces progress toward inclusion in New Zealand schools. It describes how the reform of special education began with the Draft Review of Special Education in 1987 that advocated abandoning the parallel special/regular education system in favour of a combined general education system based upon mainstreaming, in which the author played a part. This reform was effected through the Special Education 2000 policy, introduced in 1996 which went a step further, introducing an intention to develop an inclusive education system within a decade.

To achieve such a change required teachers and school leaders to adopt practices that enabled inclusion to be successful. In the period between these two events, the author was engaged in a systematic process of trialing the introduction of effective teaching and learning practices in primary and secondary schools.

The new policy demanded a paradigmatic change that was necessary for an inclusive education system. A series of stepping-stone projects carried out by the author contributed to the establishment of a national professional development programme for Resource Teachers: Learning and Behaviour (RTLb) which was expected to act as a catalyst for change. The ways in which this training programme has contributed to inclusive teaching practices is noted.

The thesis is set out in four parts.

Part One sets the scene where education has moved from highly selective, elitist schooling for a privileged few to universal education for all students. Within this context, inequities and disrespect for diversity, discrimination against students with disabilities, and elitism had still to be overcome. The author's advocacy for inclusion is noted.

Part Two goes on to describe three projects initiated by the author that laid out pathways toward effective teaching and learning. Each project builds upon those before it, demonstrating how teachers can respond to the needs of all their students, including those who are struggling to achieve. In the first two projects, ways in which a collaborative consultant can work with classroom teachers and school leaders to introduce effective teaching practices is illustrated. The third project describes ways in which trainee teachers can learn and put effective teaching strategies into practice.

Part Three examines four critical elements emerging from the stepping-stone projects and the literature, for implementing a paradigmatic change process in special and regular education – the change process itself, managing professional development, collaborative problem solving and ecological assessment.

Part Four examines the ways in which an emerging model for special education has developed in New Zealand through the RTLB professional development programme.

This thesis describes one person's contribution to the challenge of reforming regular education to be inclusive of all students in New Zealand schools. The critical elements that make up a transformational change process are identified. A vision for the future is offered, noting the conceptual and operational issues that constitute a challenge for inclusive education in New Zealand.

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# PROPOSAL AND INTRODUCTION

## **Proposal**

An inclusive school system requires a highly professionalised support service. Support staff should have the characteristics and skills to be credible and effective co-workers in a complex educational environment. In particular, support staff would have to be highly trained in a problem solving consultancy role, they would need to be knowledgeable of the most up to date, empirically derived strategies for successful teaching and learning and they would understand clearly the role of a support (as opposed to a “hands on”) colleague.

Finding a way to meet this ambitious aim is the purpose of this thesis. The gradual search for a model is illustrated in the stepping-stones set out in the thesis.

## **Introduction**

Through the latter part of the 20<sup>th</sup> Century there was a gradual move from a foundation for special education based upon a functional deficit paradigm, toward an inclusive ecological paradigm as the basis for conceptualizing special education (Thomson, Brown, Jones & Manins, 1990). The reform of special education with the new policy Special Education 2000 (1996) saw the realization of this movement, in one particular sector of special education, that of the Resource Teachers: Learning and Behaviour (RTLB). The intention of the new policy was, in the words of the Chief Executive of the Ministry of Education, “to achieve, over the next decade, a world class inclusive education system that provides learning opportunities of equal quality to all students” (p. 5).

Special Education 2000 represents a major change – a paradigm shift for special and regular education in New Zealand. For the first time, special education resource personnel are engaged within regular education on a broad based approach. Their purpose is to assist their regular education colleagues to include not only those students who might once have been recommended for special classes, but also those students who are struggling academically or whose social behaviour is maladaptive. To do this RTLB must work with teachers, school

leaders and the community to improve the teaching–learning process in our schools. Only in this way can inclusion really work. Concurrently, the quality of classroom teaching is likely to rise.

Activating the many students in our schools who are not aspiring to excellence is an equity issue. For them to become enthusiastic learners is a challenge for the 21<sup>st</sup> Century. As Darling-Hammond (1993) puts it, “There is little room in today’s society for those who cannot manage complexity, find and use resources, and continually learn new technologies, approaches and occupations” (p.753). Despite the administrative reforms of the past 13 years, which changed the face of school administration from a centralized to a totally decentralized, single school system, New Zealand still sees 18% of school leavers completing their secondary education without any kind of formal qualification (Ministry of Education, 2001). One in every eight of our children leave school after year eleven, in other words, virtually as soon as they can legally do so.

Few educational reforms have concentrated on meeting the needs of all students. A question must arise whether there are an irreducible number of students who can be advanced in their achievement to levels we once expected only of the talented or privileged. Is it because there are some students who cannot be taught or is there perhaps a mismatch between schools and some young people? McCaslin and Good (1992) suggest what they call a misalliance of management and instructional goals in American schools; it is probably witnessed as often in schools in New Zealand. The demands of the 21<sup>st</sup> Century are often referred to as having such qualities as a capacity for problem analysis and problem solving, flexibility and creativity, skills in synthesizing a vast array of new and complex information and the like. One must wonder if, again, these skills are to be required only by those students who are talented or privileged. And if not, then how will the schools go about ensuring all students in their charge gain these skills?

Thurow (1999) has suggested that there is a kind of social readiness in any society to make the changes, or engage in the actions that lead to improvements for the community. Without such social willingness, little will be done. Reform in special and regular education seems to fit this pattern. McLaren (1985) pointed to the

slow progress in putting into effect the Thomas Report on secondary education, due to unwillingness among secondary teachers to accept it. It took decades for some of its intentions to be implemented. For real change to occur, under this proposition, a whole community must see and accept the need for reform. This kind of change is less likely to be incremental than fundamental in Cuban's terms (Cuban, 1996). It leaves unanswered the question of how to effect incremental change where that is all that is currently possible.

The history of incremental change suggests it has its risks. In an intriguing analysis, Deschenes, Cuban and Tyack (2001) review the history of how schools have dealt with students who do not fit the institutional model of schooling and how the schools have largely emerged unscathed. As Skrtic (1991) suggests general education discourse is grounded in the presumptions that school organizations are rational and school failure is pathological. Deschenes et al. come to much the same conclusion as Capper, et al. (2000) that a fundamental change is required not only in the ways schools are organized but in the way teaching is conducted. Interestingly however, the example Deschenes et al. cite as exemplary is contained within only one high school and its associated community, demonstrating perhaps that impressive change and reform can occur when a few like minded and determined people pursue it.

This thesis describes and documents a way in which this goal might be achieved. It demonstrates that there is a need to reorganize and train a significant number of people. It indicates that it will take time to accomplish and that there is bound to be some resistance from schools that have yet to accept that the Education Act really does describe the school population as all young New Zealanders.

The thesis focuses on a strategic/inclusive teaching and an organizational approach that provides a clear rationale and a means for effecting the necessary changes within our education system. It draws upon several key research and professional development initiatives, which provide the evidence for a new, inclusive and strategic model for general education provision.

The major focus of the thesis is upon addressing the ways in which teachers and consultants who work with them, can adopt innovative ways of improving teaching and learning. It is clear however, that such efforts do not happen within a vacuum. To paraphrase Uline, Miller, and Tschannen-Moran (1998) efforts to improve student outcomes that cause resentment or affect staff morale run at cross purposes with efforts to create effective schools. Consultants in the current situation in New Zealand face some hurdles of this kind, particularly at the secondary school level. As Fullan (1990) points out, there are “many more structural and normative barriers to organizational change, such as departmentalization, individual teacher autonomy, physical isolation and size” (p.251).

This work began when, as a senior officer in the Department of Education, I put forward proposals to reform special education (Department of Education, 1987) and through new policy proposals to introduce support for effective teaching programmes in secondary schools. The first project reported here was the result of a pilot study to trial the new policy proposal. The thesis draws together themes from the work of the author first in secondary schools, as a change agent, to influence the teaching learning process. Then, with the generalization of that work to a wide range of schools, using selected “lead” teachers as “internal consultants”. This is followed by the use of lessons learned in those programmes, to work with a group of 22 (unselected) secondary teacher trainees. Finally, the lessons learned over the previous six years of working with schools, principals and teachers, and trainees are applied in developing a methodology for a newly defined group of consultants – Resource Teachers: Learning and Behaviour. This cadre of consultant teachers was established virtually as the “front line” of implementation of an ambitious and innovative policy of government, Special Education 2000.

The thesis begins with two chapters which set the scene of a changing educational world, describe a vision of special education embedded within regular education, providing an inclusive and safe environment for all learners. There follows three chapters (Part Two) describing a set of stepping stones toward an understanding of how to prepare consultant teachers for the complex and challenging task of

working collaboratively with class teachers and school leaders. Each of these chapters is a study in itself. Each contributed to a longer term vision of schools working effectively with all their students, particularly those who struggle academically or who act to meet their needs in inappropriate or maladaptive ways. These studies are sequential in-as-much as they follow logically upon each other as the author strove to make explicit ways in which teachers can work effectively with all their students, and consultants can find ways to assist them.

Part Three consists of four chapters which focus upon identified themes judged to be important in implementing an innovative development programme for consultants in schools. They are based upon the requirement that the consultants must be effective in implementing an inclusive educational system in New Zealand.

The concluding chapter summarizes the themes that emerged as important for training consultant teachers. These themes and principles constitute the writer's contribution to the RTLB training programme, though they do not do so exclusively. As in any collaborative effort, many other people bring ideas and innovations to a cooperative team and no one person is responsible for any major theme or development.

## ETHICS

In all three studies, ethical standards consistent with the New Zealand Association for Research in Education were met. In the first and second stepping-stone studies, approval was gained through the Ministry of Education. The managers of the schools gave their approval and teachers involved in the programmes gave their informed consent. In the Two Schools study, the schools informed parents of the programme and a parent from each school, representing the Board of trustees was a member of the programme advisory committee. In the third stepping stone, trainee teachers gave their informed consent for their inclusion in research. At any time an avenue existed for a teacher or parent to withdraw themselves or their child from the programme, without prejudice.

## **PART ONE**

In Part One of this thesis, the background to the development of an inclusive special education system in New Zealand is described. The thesis begins with an introduction that sets out the focus of the thesis and explains the new policy for special education in New Zealand. The first chapter sets the scene for reviewing progress toward inclusion and considers the major issues involved in that process.

Chapter Two considers progress over the last quarter century toward a broad approach to special education and its integration within regular education. The writer's contribution is touched upon and the prospects for the future are considered.

# **CHAPTER ONE:**

## **SETTING THE SCENE**

### **THE CHANGING EDUCATIONAL WORLD**

The transition from an agrarian, through an industrial and now into an information society brings with it concomitant demands upon education systems. As society has changed, so has its view of the place of people in the society itself. An agrarian society demanded few with education and many with manual skills. An industrial world demanded more with higher-level academic training but many with only a modicum of education, sufficient to develop the skills of lower order management, manufacture and simple record keeping and communication. In particular there was a need for an obedient and available work force willing to follow instructions and loyal to those who led or paid them.

The transformation of the social order that might be marked by the Second World War and certainly by the space race saw a new demand on education. The move to educate the veterans of WW II in the Western world saw the beginning of a new and revitalized tertiary education system. There was a movement toward a more child centred approach to primary education that had been interrupted by the war. At the secondary level, however there was only slow and somewhat unwilling progress for at least two more decades (McLaren, 1985) and only moderate progress since then.

Furthermore, the growing awareness of their inequality, first by those of colour, by gender and then by disability heralded a new demand, that of equity not only of access to curriculum and learning support but also, in some cases, to school itself. Yet this demand was running parallel to another, perhaps perceived as more urgent demand, that for excellence. That both can exist, side by side is gradually becoming accepted. The measure of this acceptance however may not be within the more obvious areas of gender, race and disability. Rather, the major issue,

which has not been fully explored, is the need to ensure all students are energized and encouraged, in a context where learning is engaging and interesting.

The current demand within Western communities is for a knowledge society. Fundamental to such a concept is that the vast majority of the population must be able to think critically and to apply knowledge to the complex but everyday events that occur in their lives (Hargreaves, 2001). The demand for schools to take up this challenge is not new (Edmonds, 1979). A few years after Edmonds' seminal article appeared, the United States National Commission on Excellence in Education (1983) was already speaking about an information age and how to include all students in an education system that developed a "learning society" of life-long learners.

Schools must be one instrument of such a societal movement. The recent literature on the role of schools in a changing society (e.g. Ainscow, 2001; Anderson, 1998; Bennett, 2001; Cuban, 1993; Hargreaves, 2001; Hill, 2001; Hopkins, 2001; Leithwood, 2001; Lieberman, 2000; Marzano, 2000; Reynolds, 2001; Roelofs, 1999; Stoll, 2001; Terwel, 1999; Wang, 1998) focuses upon the notions of change, reform, leadership and restructuring. Yet schools are clearly conservative institutions dedicated to the preservation of society's values and cultural mores. Schools are followers they seldom lead change. The issue is how long can a changing society wait upon its educational institutions to re-form to meet the challenges and demands of the post modern or information age world?

This is not to say that schools do not change at all. The move from an agrarian to industrial age and on to the so-called era of "social concern" (Cooper & Henderson, 1995) is reflected in the way schools adapted to the demands of society. None-the-less, as Capper, Fitzgerald, Weldon and Wilson (2000) point out, the so-called "factory" model of schooling has persisted in Western countries since its inception in Prussia two centuries ago. The changes have largely been what Cuban (1993) describes as incremental rather than fundamental, or as Hood (1998) puts it, changes at the margins.

Just as there is recognition that society is changing and therefore requiring a different approach to the organization and conduct of teaching and learning, so there is a recognition that the knowledge of how to effect the changes is emerging (Bennett, 2001; Lieberman, 2000). The knowledge base for teachers has improved in a quite remarkable fashion over the last twenty-five or so years (Barnes, 1989; Berliner, 1983, 1988; Wang, 1998; Ysseldyke, 2001). The real issue is how much of that knowledge base is being put into effect (Ysseldyke, 2001). How do teachers get to know the advances in teaching strategies and the concomitant learning strategies their students must acquire? There are two issues that need some explanation.

The first is a view of how learning occurs. An emergent theoretical and practice orientation comes from the study of cognitive psychology (e.g. Derry & Lesgold, 1996; Glaser, 1984, 1990; Harris & Pressley, 1991). These authors, among others note the important move from knowledge transfer to a cyclical progression of learning situated in authentic contexts within a community of practice. This is a far cry from the “factory model” of learning that dominates our secondary school system ([Roelofs, 1999; Hood, 1998) and is still not unknown in intermediate and more than a few primary classrooms.

The second issue is the notion of best practice. It seems that what has been learned from research is not easily conveyed to practicing classroom teachers (Hargreaves, 1996; Ysseldyke, 2001). How we ensure that what may be brought to the attention of teachers and pre-service trainees can be applied in practice seems to be the challenge.

A further question then arises; how can change occur in a stable and conservative institutional setting? The evidence is clear that schools are slow to change (Cuban, 1993), resist externally imposed reform and, at the secondary level at least, have a culture that is both authoritarian and largely individualistic (Hargreaves, 1992) both for the teachers themselves and in the way learning takes place. If change is to occur in schools, it appears it must be through acculturation rather than through some form of outside imposition.

These issues will be discussed in greater detail in this thesis. Next. However, I will briefly review the history of how low achievers have been catered for by our system of schooling.

In the past special education has been seen as an adjunct to regular education. It has evolved from a segregated service for a small number of students with clear and obvious disabilities into a broad, general programme for a wide range of students with obvious and not so obvious special needs (Mitchell & Mitchell, 1985). There has been a constant jostling for position within this general framework as new and increasingly less specific “disorders” have been nominated.

The Western tradition emanating from Plato and Aristotle, led us into the view that there were indeed (men) of gold, silver and iron or bronze. That this view persists is readily found, not only in our more distant educational history but also in the present day. Quite recently a senior academic in one of our colleges of education had this to say: “By and large, people selected for teaching are not to be ‘equated’ with lawyers, doctors, engineers, etc, on at least two grounds. They do not, first come from the same achievement/intelligence ‘cut’ of the system” (personal communication, 1987).

Certainly the European model of separating students into “streams” and more particularly the English variety of this model has affected us. When in New Zealand for the New Education Fellowship Conference, Sir Cyril Norwood explained all this (Norwood, 1937) and added that, “Right into the nineteenth century the grand old fortifying classical curriculum for all continued, because school was a preparation for university and was not thought of as anything else” (p.294). Norwood was referring to education for the wealthy, not universal education. Yet that model became the dominant one, even when universal secondary education was introduced in the twentieth century.

Though universal education required something else, Norwood still saw it in stratified terms: “I beg you to remember that I am thinking all the time of the mass

of children who are not possessed of any special intellectual ability” (p.292). Sampson (1971) recognized what had emerged however when he said:

The country’s children were sorted into carthorses, riding horses and thoroughbred racers.... It was in practice a bipartite system, in which "the submerged three quarters" went to jumped up elementary schools. The clever boys went to grammar school. All three kinds of schools (there were a few technical schools) were meant to have "parity of esteem", which was a flagrant though consoling hypocrisy in a society which pays such respect to academic values. (p.128)

All this had much to do with how separation of people into stratified social classes easily fitted the European, but particularly English view of privilege. It was not difficult to keep some children out of the system of influence, privilege and power. Whether it was working class children generally, girls, or those with disabilities, the exclusionary nature of the system enabled minimal access to higher levels of achievement. Norwood (1937) noted that 10% of children went to secondary school and a mere 1% proceeded to university, in late 1930s England. It was and perhaps remains, as Raven (1988) described it, a rationing of privilege.

The New Zealand education system followed this English model. It restricted entry by class, gender or, in some cases, ability. It mimicked the English curriculum, even for primary education (Brown, 1975). It limited progress to secondary school and there, it streamed children into classical, professional and trade bands. The secondary system to this day shows traces of the grammar school approach, despite its lack of utility in a democracy. In particular though, it allowed for the complete exclusion of many students whose teaching demands were significant and the separation of those who were hard to teach.

By the beginning of the twentieth century, the eugenics movement had linked ability, newly defined by IQ (and advanced by the selection procedures for the

army in World War I) with race and class (Gould, 1981). Disability and social difference were included in the record of unacceptable human qualities. Such consequences as the White Australia immigration policy and the refusal to allow Chinese the same rights of immigration in New Zealand are well known. In the United States, Montagu (1960) tells of a list of social inadequacies unwanted among immigrants, made in 1922, which led to proposals for sterilization laws (actually adopted by twenty-eight states). Montagu listed a number of famous citizens who would have been affected had such a law been in place in their day including Helen Keller, F. D. Roosevelt, Isaac Newton and Jesus, Gandhi and Socrates. Whether culling immigrants on the New York docks, conscripts in the military or classifying and streaming children in school, the measurement of intelligence fitted perfectly with the discriminatory views of the movement. Together, Galton and Terman virtually established a transatlantic hierarchical tree of intelligence and, thanks to the use of the normal curve, education had a specious, pseudo scientific method of using it as a basis for access and assessment in our schools.

#### **THE SEARCH FOR PATHOLOGY**

The biological model served more than the notion of inherited intelligence and consequent ability, with its associated racial and class bias. It also allowed into education the notion of pathology. Borrowed from medicine, this concept was destined to become a major determinant of the character of special education to this day. Certainly since Hinshelwood (see Coles, 1987) the medical model has been a significant influence upon our view of low academic achievement.

The biological-medical model proposed “treatments” and, potentially, cures. The seductive nature of this approach was matched only, it seems, by the opportunity to attribute our failure with these children to their own deficiencies and to disconnect or dissociate children’s failure with our own teaching. This amounted to belief in the intricacies of neurological functioning and the (uncertain) possibilities of medical treatment. The less than helpful story of some of the outcomes of this approach is well documented (e.g. Bochner, 1980; Kavale & Mattson, 1983) discussing sensory-motor integration. Westwood (1995) cites

Bartolome, "The deficit model has the longest history of any model discussed in the educational literature" (p. 7). Westwood's own research shows how pervasive is teacher attribution to causality within the child (or the family) and how seldom teachers will offer their own teaching approach or school environment as a cause of learning difficulty. However, I shall show that in the work with which I have been associated over many years, this need not always be the case (Brown, 1992).

Coles (1987) cites one of the earlier examples of learning difficulty, its attribution to a pathological condition and the seemingly incomprehensible misunderstanding of the case. James Hinshelwood was a Glasgow ophthalmologist who had studied "congenital word-blindness" around the turn of the century. Confronted with a twelve-year-old boy reading at around second year level, Hinshelwood made his diagnosis. The root cause of word blindness was said to be localized brain damage that was probably hereditary. Hinshelwood's treatment however, was to stop the boy reading in front of the class and to have him given short, individualized lessons. The boy made rapid progress. Hinshelwood took credit for the diagnosis rather than the educational intervention.

Grace Fernald tells a contrary story (Fernald, 1943) of an eleven-year-old boy with "mirror writing". Fernald used the simple technique of shaping the boy's writing using the left side of the page as a starting point. This lad was to be used in a demonstration of dyslexia to a group of important educators. Following five days in Fernald's psychological laboratory, the boy failed completely to demonstrate his disability.

Fernald was a sceptic in the field well before many of the critics of biological explanations began to gather. For example, commenting upon the notion of lack of visual and auditory perceptions, Fernald took the view that failure to learn was usually due to the use of methods not adapted to the child's abilities, pointing out that students develop visual and auditory perceptions rapidly when methods of learning are changed to suit them. On the subject of inversions, reversions, confusion of symbols, she says, "learning to read is, in part, a process of eliminating these errors. The child who fails to learn continues to do all the things all children do before they have learned" (p.178). And on Orton's use of the

pretentious term “strephosymbolia” Fernald says, “It seems to us merely to give a new name to a condition that we find in these cases, rather than to explain the condition” (p.159).

Reflecting the same educational approach in speaking about New Zealand schools Clay (1987b) noted that, “Teachers run the risk of teaching the child to be learning disabled when they design their lessons from models of disability” (p.166).

By citing a biological-neurological cause, we have been encouraged to view learning difficulties as a particular deficit. The IQ has become the proxy for neurological functioning, perhaps in some modality, without any clear evidence that it represents anything but its own scores. As Parkyn (cited in Olssen, 1988) says, “High intelligence (is) how children perform on a standardised test of intelligence.” Boring (cited in Coles 1987) described intelligence as, “What the Psychological Corporation says it is.” To paraphrase John Dewey illustrating the lack of any real utility in mental testing, – when weighing a pig, take a log and lay it over a rock. On one end place the pig and on the other, a large stone which would balance the log. Then try to estimate the weight of the stone.

Stanovich (1991) makes the point that educators have never grappled seriously with why the benchmark should be an IQ. The notion of discrepancy between general functioning (IQ) and some disability however, certainly allowed educators first to rank students, then to explain how some could not be expected to learn while others were unexpectedly not learning. Unexpected failure to learn is more easily attributed to causes other than the learning environment (home as well as school). Despite the lack of clear evidence, the issue of brain functioning remains the popular cause. The generalization from genuine physical and/or neurological conditions such as deafness, blindness and cerebral palsy was perhaps just too easy.

From the notion of biological-neurological causation has sprung the differential diagnosis model. Some of this is said to be medical, as we see with dyslexia, ADHD and some psychiatric conditions; others are seen only as possibly educational, as we see in so called learning disabilities. Neither can be based upon

other than soft and usually uncertain diagnostic procedures (Coles, 1987, Ysseldyke, 1984, Ysseldyke, Algozzine, Shinn & McGue, 1988) but all involve us in the search for pathology. All allow us to ignore or heavily discount the possibility of educational or environmental causation. In addition, the interpretation of “conditions” clouds the possibility of educational rather than clinical intervention.

Skrtic (1991) proposes the thesis that the general education discourse is grounded in the presumptions that school organizations are rational and school failure is pathological. He goes on to argue that:

There are four mutually reinforcing assumptions:  
disabilities are pathological conditions that students have;  
differential diagnosis is objective and useful;  
special education is a rationally conceived and co-ordinated system of services that benefits diagnosed students; and  
progress results from rational technological improvements in diagnostic and instructional practices. (p.152)

Schools have learned not to expect success for all, or even the great number of students. Consequently they have made organizational structures consistent with that belief. In the case of secondary schooling, the ‘drafting’ of students into grammar and technical schools has changed. But secondary schools still fundamentally follow the factory model of education with still some of the trappings of the English grammar school approach (Capper, et al, 2000; Hood, 1998). Many still stream using group intelligence tests (sometimes disguised as achievement tests). Their organization for learning is still woefully inadequate, many of them explicitly or implicitly ignore what Sampson (1971) characterised as the “carhorses” of the school population. Primary schools in New Zealand, together with their secondary partners retain a dependency upon a special education model based on pathology.

Special education developed from an understanding that not all children would fit even into a ranking and streaming model. As more liberal views came to

dominate, society began to find a place for children with disabilities. This change began in many countries with separate provision made for students with marked sensory and physical disabilities (Mitchell & Mitchell, 1985; Kirby, Holtzman & Messick, 1982). In New Zealand, these institutions were well established by the beginning of the twentieth century. While general provision for less successful learners in New Zealand was established with special classes in 1917, it was during the period from the late 1950s to the mid 1970s that an implicit contract was established between regular and special education. The unwritten contract saw those in regular education supporting special education to gain resources and staffing. In return, those in special education took over the troublesome and troubling students from regular classes. The expansion of special education was significant, despite the Department of Education stating in 1959 that separation of children was done only reluctantly. New Zealand was in step with the rest of the Western world.

By the 1960s, the demand for education for all students excluded from even special education was becoming intense. In New Zealand, the Department of Education accepted into its ambit, children and young adults previously cared for in so-called occupation centers for those with intellectual disabilities (called intellectual handicap at the time).

In the United States, growing parental pressure went even further and called for specific provision for children regarded as learning disabled. There, parents were willing to accept suggestions that neurological damage or dysfunction was responsible for their children's lack of success (Tucker, 1980). Such an explanation certainly was preferred to mild mental retardation or emotional disturbance, and problems in the home. As Tucker also suggests, there were growing overtones of racial prejudice as it became less acceptable to use mental retardation as a pathological category for minority children.

The diagnosis of learning disability appears to have struck a chord for all the players in American special education. It suited the parents better than alternative diagnoses. It suited both regular and special educators for all the reasons noted. Coles (1987) suggests, "The entire process involved an interaction of forces:

parents, professionals, researchers, and government officials, all tied together by hierarchical structures” (p.200). A new category had been recognized. By including learning disabilities in the Public Law 94-142 legislation of 1975, not only were all students included into the American education system, so too was a definition of one category which was to have repercussions around the English speaking world.

Within the Western world, New Zealand moved, together with other like countries, in the establishment of provisions for students with special teaching needs. Each step was characterized by the beliefs of the time, moving from segregation of those with significant disabilities to special classes and units for those who were hard to teach. These services were largely centered upon physical and sensory disabilities on the one hand, provided through segregated facilities, and special classes for “slow learners” and later “emotionally disturbed” students on the other hand.

The development of special education, while motivated at first by a kind of liberal concern for less fortunate children with sensory and certain physical disabilities, took on a different perspective when universal education became available. Then, teachers sought ways to cope with increasingly diverse students for whom they appeared to lack what might be called a technology for their education. Capper, et al. (2000) have used this term to describe a whole way of organizing teaching. It’s utility for this purpose is helpful in the sense that we can see how teachers, working in the highly centralized and tightly governed system of the early 20th Century, were less likely to be able to cope with such increasingly diverse students. At that time however, many hard to teach students were automatically withheld from school simply by the mores of the time.

A different picture emerged by mid century however, when universal education was fully in place and the school leaving age in New Zealand was raised to 15 years by 1944. The organizational characteristics of schools were hierarchical and more than a little authoritarian. Teachers worked in a “single cell” system with an inevitably narrow range of skills and in many cases a rather timid approach to diversity. The “contract” with special education was a support and comfort for

those teachers who found diversity too complex, challenging or demanding for their limited range of skills. In Capper's terms, the technology of teaching was restricted, limited and uninviting for students with diverse needs.

One might expand Rosenholtz's notion (cited in Stoll & Fink, 1996) of "moving" and "stuck" schools, beyond schools and districts, and into national models of education. At the time special education was developing as a sub set of the teaching profession, the question of how to develop a technology to include diverse students into regular schools was not being addressed. Rather, we were looking for a technology for "specialist" teaching in exclusionary settings. The system itself might be described as "stuck".

The mentality that led us to finding ways of dealing with diversity had to do with a complex mix of attitudes and conventions; maintenance of the status quo and uncertainty in the face of puzzling student needs, no doubt played their part. Skrtic (1991,1995) argues that schools, indeed the education system, has preferred to see itself as rational and students as disabled – the pathology lies in the child. Coles (1987) puts it this way when discussing LD:

By accepting the LD definition and by meeting LD demands, limited as they were, the schools could resolve the causation issue while remaining within the bounds of school practice and theory. LD made "professional sense." Unlike other criticisms of the 1960s, which charged that the schools were classist, racist, authoritarian, hierarchical, and sexist, LD criticism fundamentally protected the schools and the social order to which they are tied. Governmental agencies were willing to back LD, thus enabling schools to respond. Together, schools and governmental institutions could accept criticisms that they had not made and supported provisions to treat learning-disabled children-by making adjustments. (p. 199)

Stanovich (1991) suggests exactly this position, from a different standpoint, “Typically very little effort is expended in ascertaining whether adequate instruction has been provided or whether the child suffers from socio-cultural disadvantage”(p.9). For a more colourful but no less penetrating point of view, see Armstrong (1993).

The American special education system is categorical. Legislation laid down the categories qualifying for assistance and under various statutes and regulations, so too was the assistance they were to receive defined. The immediate upshot of the inclusion of learning disability (LD) in the legislation was the need to distinguish students who were categorized as LD from those who were otherwise disabled, or were not disabled at all. Three issues were involved, all of which have been subject to much debate. The first was the long held view that LD was an unexpected effect, some kind of departure from a general expectation based upon otherwise normal development. The second was finding reliable measures of these effects. Finally, and emerging from these issues was the question of how to manage the deluge of students diagnosed as in need of assistance.

In the United States, it became clear that over-diagnosis of LD occurred quite quickly (Brosnan, 1985; McGill-Franzen, 1987). Between 1976 and 1983 the number of children said to have LD rose by 44% (Brosnan, 1983). What is more, those diagnosed with mental retardation dropped by 20%. This was entirely consistent with the middle class preference for the more socially acceptable diagnosis. Within ten years many states had placed a “cap” on the percentage of students accepted into special education in order to restrain costs (Personal communications, Don Herschel, Director of Special Education, United School District, Kansas, April 1985; Madeleine Will, Assistant Secretary of Education, Washington D.C., May 1985). Herschel described it as “the ungovernable category” while Rudd Turnbull at the University of Kansas described specific learning disability as “the trap of PL 94-142” (Personal communication, April 1985).

In New Zealand by the early 1980s there was a powerful lobby developing to follow the American categorical model for LD. The effect of this movement was

twofold. First, it gathered together a wide-ranging constituency of parents and teachers who sought additional resources for students who were not succeeding. The second effect was to have the voluntary organizations that had established provision for students with sensory, physical and intellectual disability come together in opposition to the proposal. The reason for the opposition lay in the nature of the New Zealand legislation. No categories were identified in the statutes. Should LD be identified in the legislation, it would be necessary to list all the disabilities, real and imagined that the parliament would admit.

The impact of the American special education policies upon New Zealand's practice had moved from professional influence and research information, to the impending imposition of legislation (Brown, 1989a). Though the bid to amend the Education Act was unsuccessful, it focused attention upon the categorical model. Public Law 94-142 had led to the introduction of individual educational plans. This was welcomed by professionals and particularly by parents who saw it (often for the first time) as a way of gaining access to communication with the school (Thomson & Rowan, 1993). With the influence of the American legislation came a greater demand for more mainstreaming but it had also forced more fully upon us, the artefacts of the categorical model.

The American system removed from regular education, not only those students with severe and moderate disabilities, it also withdrew either permanently, temporarily or intermittently a wide range of students who would never have been considered for such programming in New Zealand schools. While so called "slow learning" students had been withdrawn in New Zealand they, together with the small number with mild behavioural difficulties began to be returned to regular classrooms during the 1980s. Their previous special class teachers became resource staff for mainstream colleagues. By 1988, 100% of these students had rejoined the mainstream in three of the eleven administrative school districts and more than half had done so in four of the remaining seven (Brown, 1989). At this time over 90% of students with a physical or sensory impairment were in the mainstream. Even for those with moderate to severe intellectual disabilities, satellite classes in regular schools had been established in all eleven education board districts. This meant that separate special schools were closing and

reducing in size. Students in satellite classes were spending up to 50% of their school hours in regular classes (Brown & Thomson, 1988).

Meanwhile in the U.S. there was a growing recognition that the categorical model was not robust. Heller, Holtzman & Messler (1982), only seven years after PL 94-142 was enacted were saying that, "We can find little empirical justification for categorical labeling that discriminates mildly mentally retarded children from other children with academic difficulties, such as LD children or children receiving compensatory education" (p.87).

The positive influence of American special education must not be underestimated. While the New Zealand system developed in parallel with those of related countries (UK, Australia & Canada) the influence of the American system has been the dominant one in New Zealand over the last 30 years (Brown, 1989b). The balance of influence has been progressive but the fit between the American and New Zealand system has been increasing.

Differences as well as similarities between the US and New Zealand system must be recognized. New Zealand had never adopted a categorical model in legislation, though it had in practical arrangements. It had never accepted the concept of LD; consequently it was easier to dismantle the segregated/separate provisions. This move was a rejection of a categorical model in-as-much as it had been officially in use in New Zealand.

#### **NEW ZEALAND ISSUES**

In New Zealand funding for special education for most of the last century was based upon a categorical model, despite the fact that no categories existed within the legislation. To attract funding one needed a diagnosis. Established categories were funded (to greater or lesser degrees) and those vying to have their newly nominated categories recognized formed pressure groups to win government or bureaucratic approval. A particular example is the amendment to the Education Act of 1964 proposed to Parliament in an effort to have specific learning

disabilities recognized in the legislation (O'Regan, 1986). There was a constant search for pathology to ensure resources were available for the nominated group.

In the last quarter of the 20th Century, this categorical model was challenged (Department of Education, 1987). By 2000, the Government and the Ministry of Education had introduced and begun the implementation of a new policy, Special Education 2000 Ministry of Education, 1998a). In a subsequent review the detail of this policy was modified by the incoming government and approved as the policy to go forward into the new century. The policy embraces the notion of a comprehensive, inclusive service for students with special needs. While there is a fundamental intention of inclusion, the policy is not entirely consistent. Students with significant needs are still funded in such a way that there are clear incentives to find the deficit, rather than identify how to include the student in the regular education system.

We have come to the present situation in special education in New Zealand via two historical tracks. Health issues constituted one track; education and welfare were the other. The separation of welfare services for children occurred in 1972 (Mitchell & Mitchell, 1985).

The medical model of health includes a number of sub models including preventive medicine and treatment. It was this latter model, often called the disease model, which dominated policy and practice in special education within the last two centuries. The original categories of special needs sprang from the physical disabilities and the medical elements of these conditions were generalized to other needs. This model drove special education in New Zealand, only recently being replaced by the intention (though not yet its complete realization) of following an educational model (Brown, 1998).

A corollary of this disease model was the influence of the growth in the use of psychometrics or the psychology of measurement of intellect and personality. Fundamentally this was an elitist movement which was, at least for some of its originators and supporters, both racist and sexist (Gould, 1981). This model was convincing to regular and special educators throughout the whole period of the

development of special education. It allowed the school system in particular and society in general to divest itself of responsibility to accept the hard to teach section of the population.

Following the second track, education and welfare issues for children, were formerly included within one department of government. For administrative reasons they were separated about forty years ago. This separation has increased the dislocation of servicing.

In 1989 special education was again separated into a policy team in the new Ministry of Education, a servicing team in the newly established Special Education Service (SES) formed to support special education following the reforms, and to devolved managers within the schools. This system has not proven to be either sufficient or robust for the task. The Ministry of Education seems unable to ensure its policy responsibilities are fully carried out. With the exception of some of its services to the Maori community, the Specialist Education Service as it was renamed, has not been a success and has been disbanded and reformed as a part of the Ministry of Education. The schools have varied in their responsiveness to policy requirements for special education, ranging from enthusiastic to oppositional (Wylie, 2000).

Before any conclusions can be drawn about special education in New Zealand, there is a need to consider its place in the national educational framework. If we are to have a world class, inclusive education system, as the Ministry proposes (Fancy, 1999) we must begin with the system itself. This is in direct contrast to ways in which special education was dealt with last century. Instead of looking at fixing up the accompaniment to regular education, we must begin with regular education itself. It will be a fruitless and ultimately unsuccessful exercise to do otherwise.

#### **CONCERN FOR INACTIVE LEARNERS**

There is a long history of concern for students who are underachieving. More than twenty years ago a major study was carried out in New Zealand to identify

students who were failing in school (Walsh, 1979). This study found a number of students who met a discrepancy criterion based upon measures of IQ and achievement. In finding an incidence level of around 6% this study more or less confirmed international estimates often found using reading and a discrepancy model (Rutter & Yule, 1973). It should be noted, however, that incidence figures using other models could go a great deal higher. Chapman, St George and Van Kraayenoord (1984) suggested that 20% of Year Seven students were underachieving. Simple inspection of the record of school outcomes shows, as demonstrated below, a high level of school failure.

This higher figure is a better indication of low academic achievement that could be considered as an outcome of schooling. In the mid 1980s when the foundations for this study began, about a third of students left secondary school in New Zealand without obtaining any formal qualification (Department of Education, 1986). This suggests either that the schools themselves were remarkably ineffective or that the school system may well be seen as a social mechanism to ration privilege (Raven, 1988) rather than a learning institution aiming to bring students to a functional level of academic (and social) skill.

More than a decade later, the number of students leaving secondary school with no qualification remains high at 18% (Ministry of Education, 2001) and for Maori 38% and Polynesian students 26%. In the five years between 1992 and 1997, these figures remained virtually unaltered. We still have 13% of high school students leaving school after three or fewer years of secondary education. In other words, one in eight New Zealand students leave school as soon as they possibly can and before they can gain a formal qualification.

Attempts to remedy this situation typically have sought to put in place more individualized remedial or compensatory programmes, which would offer direct instruction to students, identified with a discrepancy between their expected and their actual academic performance. The first remedial class was established in 1941 (Mitchell & Mitchell, 1985). During the 1970s the Society for the Prevention of Learning Disabilities (SPELD) began to set up diagnostic and remedial centres (Seabrook, 1980). However, in 1981 the Department of

Education reviewed the provisions for students with serious learning difficulties (Department of Education, 1981). This review took a more comprehensive view of the need to assist students who were not succeeding. It recommended not only that specialist teachers be appointed but also that all teachers should play a part in working with struggling learners. Specifically, it recommended (a) increased instruction in the teaching of reading in pre-service training for both primary and secondary trainees, including “substantial instruction in the education of children with special needs” (p. 4), (b) “action oriented, in-school programmes for classroom teachers in intensive reading programmes for children with a lag in learning to read” (p.5), and (c) training for resource teachers of reading. In 1982 remedial class teachers were incorporated into a resource teacher of reading group (Mitchell & Mitchell, 1985) in an attempt to bring remedial programmes closer to the classroom.

The clear purpose of the amendment to the Education Act proposed by Kathy O'Regan was to attract resources to a group that had been consistently under-resourced. A fundamental difficulty with the definition it proposed however is that it described a condition that cannot be reliably identified. The definition was "soft" allowing students with a wide range of characteristics to be included (Adelman & Taylor, 1986). There is no clear evidence that teachers, psychologists or anybody else can reliably differentiate such a population (Algozzine & Ysseldyke, 1986; Ysseldyke, 2001).

Before consideration can be given to implementing any programme, the matter of who will be included must be resolved and what will become of those who “missed out.” It is not possible on the available evidence to separate students reliably into categories of learning difficulties. To attempt to do so would create problems of selection using instruments with questionable validity and reliability. It would demand differentiated programmes based upon dubious assignment assumptions (Coles, 1987). Furthermore, the costs do not justify the resulting possible benefits (Wong, 1986).

Ysseldyke (1985) concluded that inclusion in teaching programmes should be determined on what he called a socio/political decision-making process. In her

work, Clay (1987b) took the same position. In this approach, the total student population is considered for inclusion in any programme aimed at improving learning and achievement. Accordingly, the programme includes as many students as resources will permit.

Such an approach eliminates argument over which students have the greater potential for improvement, who has more complex difficulties or who has too low intelligence to profit from inclusion. Since none of these characteristics can be demonstrated to be distinguishable (Coles, 1987; Olssen, 1988) consideration of their value awaits resolution (Stanovich, 1991). Instead, the introduction of class-wide programmes, strategies and learning-teaching methods to schools, which would enhance the learning rates of all students included in the programme, may be more helpful (Bickel & Bickel, 1986; Brophy, 1986; Bulgren, Schumaker & Deshler, 1988; Deshler & Schumaker, 1988; Duffy-Hester, 1999; Segal, Chipman & Glaser, 1985; Wang & Palincsar, 1989).

For all that we may say about how such a strategic approach can be justified, it remains for teachers to apply them, in particular, to have the will to apply them. As students progress through their years at school, for some, the gap between their cultural and behavioural patterns and those of their teachers may become more apparent. This is a major challenge for teachers, who may feel dissociated from their students, perhaps less inclined to respond to their needs and possibly even dismissive of their potential to achieve. As the Holmes Group report, *Tomorrow's Teachers* (1986) makes the point:

Truly competent teachers find it is as important to discover ways of helping those who find learning difficult and frustrating as they do helping those much more like themselves, who find school learning easy and rewarding. Such competent teaching becomes more important daily, as the student population shifts to include a greater portion of educationally at risk students....Children's at risk status is created and exacerbated by school and classroom enforcement of

limited assumptions about their potential abilities and strengths. (p. 30)

One illustration of the benefits available to students who are of low socio-economic status, and thus at risk of failure, is the use of class wide peer tutoring demonstrated by Greenwood, Carta and Atwater (1991). In this application of an eco-behavioural analysis and intervention, the authors could demonstrate the effectiveness and efficiency of a strategic approach to teaching struggling learners. Furthermore, as these authors point out, teachers can “decelerate” academic development by their approach to struggling learners. When teachers approach struggling learners with the same technology as they do successful learners, i.e. “the ecological arrangements that accelerate academic responding, students would learn more in less time” (p. 67). This appears to be exactly what the Holmes Group is talking about. This issue will be examined in later chapters of this thesis.

Following the development of interest in learning difficulties in the United States, and particularly since the establishment of the institutes for research on learning disabilities, a number of innovative and successful programmes have been developed which have application to New Zealand. Some of these programmes have evolved in a more general sense in the interaction between special education and regular education while others have evolved as a direct result of efforts to meet the needs of the less proficient learner. These have included cooperative learning (Johnson & Johnson, 1989), the learning strategies approach (Deshler, Alley, Warner & Schumaker, 1981), reciprocal teaching (Brown & Palincsar, 1986; Palincsar, Ransom & Derber, 1988/89), applied behaviour analysis (Lovitt, 1975; Koorland, 1986; Glynn, 1989), metacognitive strategies (Palincsar, 1986; Garner, 1987) paired reading (Topping, 1987), peer learning arrangements (Damon & Phelps, 1989), learning and studies strategies (Weinstein, 1987), home and school cooperation (McNaughton, Glynn & Robinson, 1981; Awatere, 1982). The use of these strategies will be discussed in greater detail in the discussion of the three stepping stones to the development of the RTLB programme.

There is a clear trend toward the delivery of assistance for learning difficulties within the regular classroom (Duffy-Hester, 1999; Klingner & Vaughn, 1998). This trend can be seen over the last 25 years as resources have gradually been located within regular classrooms. This approach has a number of challenges though, particularly in secondary classrooms.

Some insight into the reading and comprehension difficulties of less proficient learners in the secondary setting is provided by Nicholson (1988). Lamb (1987) has demonstrated the demanding and pervasive writing tasks required of secondary students. Schumaker and Deshler (1988) have set out the many obstacles to effective provision of programmes to deal with these and other characteristics of regular secondary school classrooms.

Despite the trend noted above there has also been a continuing debate over where remedial or supportive instruction should be given. In New Zealand the remedial reading clinics were first replaced by itinerant resource teachers of reading and now by the Resource Teachers: Literacy, who have a greater in-class focus. Special classes have largely been disbanded in a similar way and increasing numbers of students now receive their special education in regular classes with support for the teacher from an RTLB.

The Draft Review of Special Education (1987) justified inclusion in regular education classes on the grounds that withdrawal places responsibility for failure to learn upon the student. The United States Secretary for Special Education used the same argument when she said:

This approach is backed by a storehouse of good intentions - but it does not always work well because its vision is flawed. Although for some the pullout approach may be appropriate it is driven by a conceptual fallacy: that poor performance in learning can be understood solely in terms of deficiencies in the student rather than the quality of the learning environment. (Will, 1986)

Yet a caution must be sounded. Reading recovery is not carried out in the classroom per se. Its implementation is set on a withdrawal or "pull out" model. Deshler (personal communication, 20 July 1989) reported that it was his opinion that the strategies programme was more effective when delivered in a pull out fashion, though less efficient in that it targeted fewer students within the available resources. Deshler has taken the view that if the policy as laid down by Will (1986) is to be effected, mainstream delivery methods must be developed. The strategies programme developed by Deshler and his colleagues has a component for the development of the regular class teacher in eliciting and maintaining strategic learning approaches by students (Lenz, Alley & Schumaker, 1987).

Robinson (1989) has offered a critique of reading recovery with respect to its impact on the regular classroom. Robinson argues that pull out programmes do not sufficiently influence the school system and that schools and teachers do not change behaviours that contribute to failure to learn. Therefore, before intensive compensatory programmes are effected by withdrawal from the classroom, their introduction into that classroom should be investigated.

To introduce effective strategy training to New Zealand classrooms has required a significant shift from previous models. School policies on streaming, teacher preferences for grouping and other classroom characteristics influence the manner of introduction. This thesis demonstrates how strategic approaches can be implemented effectively and how teachers can be assisted in doing so through collaborative problem solving with consultants.

In summary, it can be demonstrated that compensatory programmes aimed at teaching young children how to manage the material they must read at school can be successful. It is clear, however, that by the time students reach intermediate and secondary school, the need is for more comprehensive programmes that retain student contact with the subject domain demands of the curriculum and sustain their presence in the social learning situation of the classroom. Further, programmes for less proficient learners must be carried through in a context that recognizes the realities of school organisational practice, although, realistically, even these have to change.

It seems possible that the lowest achieving 30% of the student population (except those already receiving special education because of their profound disabilities) could be assisted by applying proven programmes which enhance student learning rates in curriculum activities. To put it another way, students may be assisted best by learning to master their curriculum demands through more effective and efficient teaching-learning skills.

In order to achieve this objective, students would benefit from strategies which have an appropriate research base and which have been demonstrated to increase student responsiveness to classroom demands. Glaser (1990) has made the point that acquisition of automatic skills is a foundation for greater understanding and planning ability. As Glaser says: "The theoretical implication is that major metacognitive changes are an unconscious byproduct of highly practised successful performance" (p. 32).

The application of such an approach is perhaps less straightforward. Redding (1990) has shown that teachers can work to make explicit to their students the strategies they are adopting and the reasons for using them. In a project entitled "The Empowering Learners Project", Redding noted: "Some teachers are finding that when they explain the learning principles on which the class activities are based, students begin to sense their own potential and become more active in their own learning" (p 48). Teachers would need to ensure newly learned skills are implemented in classroom activities and to arrange, pace and review curriculum material in such a way that effective learning skills can be brought to bear.

Essentially, the task is to activate the inactive group of learners who are the lowest achievers in our schools (Lenz, Alley & Schumaker, 1987). Perhaps too, we require actively instructive teachers! Schumaker, Deshler and Ellis (1986) speak of three components to their programme: (a) curriculum, (b) instructional, (c) organizational. It is important that any programme is able to accommodate all these elements and that they receive sufficient attention, alongside outcome measures. Since most of the work that has been done in this area originated in North America, it is important too that material that is to be used is modified or

rearranged to enable it to succeed in the New Zealand educational culture. It would be necessary to ensure it is compatible with curriculum material and up to date teaching practices.

#### **FINDING A WAY FORWARD**

While it may take time to accomplish, it is necessary to begin with the assumption that the regular education system is the basis of, and home for all children in New Zealand. Schools must therefore be considered to be the fundamental location for all teaching and learning. Diversity in the student population would have to be accepted as the norm. Schools will be charged with educating all the children of the nation. This is the first and most important conceptual imperative that follows from the reform of special education and the introduction of SE2000. Unless this assumption is made – and ultimately understood by the school system, all efforts at change are likely to fail. The reform would be no further advanced and pressure groups would continue to bicker over resources, categories and ever increasing demands to have this and the next esoteric category of disability recognized, funded and included in a growing list of special cases.

The major challenge for special education is to establish a support network to schools to ensure they may carry out their responsibilities to all their students. A second challenge is the orientation to the group being served. The growing recognition of an educational rather than a disease model is now well accepted in educational thinking (though not always among practitioners). Where the emphasis is placed upon students' potential for learning, rather than upon their deficits, which will need "treatment", there will be a different and more positive orientation to assisting the individual. For this to be effective, it must be accepted as a "cultural norm." Judging by reports in RTLB assignments, there is often a clear difference between the ecological and inclusive approach taken by them and a continuing emphasis by some SES staff on a deficit model.

None of this disputes the need for a tiny proportion of the population of students to receive specialist assistance "on or off campus" so to speak. Students who are sick will still need to be educated in hospital settings. Children in isolated

locations need correspondence lessons. A few children with “isolating conditions” such as infectious diseases need home or separate assistance. Children who are a serious threat to the safety of others still need to be placed in a secure environment. However, for the vast majority of students with special needs, the regular school has been demonstrated to be the most helpful and satisfying environment. The issue is that some schools, too many still, have yet to be convinced that they have the responsibility under the Education Act to accept on to their roll and teach these students (Ryba & Annan, 2000).

Without any doubt the two greatest challenges will be:

- ensuring the schools themselves accept their role for inclusion of all our children; and
- establishing and maintaining a common culture and a common methodology across the support staff.

Disbanding the SES and establishing a special education group within the Ministry of Education is a courageous and timely move. It offers the opportunity to achieve a world-class special education system in New Zealand advocated in policy.

It is likely that there will be significant pressure from many groups to have their interest in particular conditions recognized. Acceding to such pressure would lead to the establishment of piecemeal and incoherent allocation of resources. It would fail to deliver a quality special education service. Equally, any attempt to replace the SES with a “look alike” service would be unfortunate. Both these kinds of response to the challenge of special education would ultimately lead to disappointment and a new round of competition for resources.

This thesis offers a way ahead. It identifies several key issues and actions required. It suggests the core issue is acceptance that the regular school system is the fundamental place for the education of all children except that tiny few who simply cannot be in schools because of some particular and remarkable situation.

Unless this is regarded as the foundation idea for a new special education, we shall make little if any progress over the foreseeable future.

In order for this to happen, over time, schools must be encouraged and supported in their efforts to educate all our children. This can only be done if there is a common goal and a well organized and managed special education support system.

## **CHAPTER TWO:**

### **TOWARD A NEW VISION**

I now want to turn to the area of my own professional experience, beginning in the 1970s, as the inadequacies of the existing special education system grew more generally apparent. While New Zealand education had been strongly influenced by the English system in its early years, there was a growing interest in developments in the United States. While the influence of John Dewey had always been recognized, primary schools in particular had begun to accept the writings of other leading American educators such as Paul McKee, Lillian Gray, George Spache, and American workbooks from publishing houses such as Ginn and Company and Scott Foresman. The writer's own teaching had included reference to these and others but a major influence had been the work of Ned Flanders with whom the writer worked as a young teacher in 1957 (Flanders, 1965). The understanding that classrooms (including my own) could be influential in catering for all children and that the effectiveness of one's work could be assessed through the study of interactions in the classroom became an abiding belief. Working first as Chief Psychologist, then as Director of Special Education, the importance of special education became the writer's major focus, but always seen as connected to and part of the regular education system.

#### **A SPECIAL EDUCATION PROGRAMME WITHIN REGULAR EDUCATION**

The position advocated to this thesis arose from a belief that the education system should adopt an educational approach, rather than a clinical one to address the learning needs of all students. While the focus remained upon those students with disability and those who were hard to teach for a variety of reasons, the writer's abiding focus was upon all those learners who could achieve more in what, for lack of better terms, might be called inclusive schools with effective teaching practices, bound together by democratic principles of inclusion for all learners. To this end it was concluded that schools should:

- conceptualize all students as part of the school population;
- consider school organization structures which enhance learning for all students making whatever provisions are necessary for special needs;
- examine teaching contexts when analyzing students failure to make academic progress;
- use direct educational measures of academic status; and
- make curriculum adaptations which are consistent with the current pedagogical knowledge base and which have a high probability of success.

The implications for the development of an inclusive educational policy in New Zealand emerged from a reconsideration of how special education should be delivered. It would follow the intentions for special education first spelt out for New Zealand in the Draft Review of Special Education (1987a). As the instigator of this review and the principal author, the writer saw this as an opportunity to develop for the Government a blueprint for the future of special education in this country. The fundamental principles of the review are set out below.

The review therefore points toward new directions for special education which will be:

- universally available;
- integral with other education programmes;
- lifelong;
- unified across sectors, home and school;
- needs based; and
- effective and accountable. (p.2)

This move from a categorical model allows the introduction of a move to an educational model. This is one based upon educational need, and not constrained by a biological or deficit orientation. It looks to the possibilities for each and every student of what they can learn.

The field of special education was particularly well placed to take this position. While it was founded upon a categorical model, its very existence demanded that it demonstrate skills of fine grained analysis and teaching skill (Pugach, 1988). If this skill is to be transferred to regular classrooms, it must be done via a system that is both enabling and demanding. In other words those with the skills such as resource teachers, must share their skills in a context where they are not expected to submit to “pull out” options. Instead they should firmly insist upon the transfer of these skills into regular classroom programmes.

There were two sources of strength to encourage this direction in 1987. The first was the history of special education provision in New Zealand. Because of our scattered population and long tradition of taking all children into our schools at age five, a number of students who might otherwise have been placed in special education remained in their own schools with their peers. For some, this was the result of their isolation from main centres of population. For others, their general patterns of behaviour were not so disturbing or of such concern that they interrupted the normal progress of the classroom. Consequently there are many teachers who have taught students in quite heterogeneous settings because there was no choice or because they were happy to do so.

The second advantage we had was the inclusion into our school system of the Reading Recovery programme (Clay, 1985). Though Reading Recovery has been criticized for its lack of systemic inclusion (Robinson, 1989) it has none-the-less had a major influence upon our junior classes. Few New Zealand teachers of five to eight year olds would be unaware of the fundamentals of Clay’s procedures. This is an illustration of how a methodology typically seen as special education can be located in regular education. What is more, it generated practice to help less successful learners based upon research on successful learners.

The way in which delivery of a new programme is conceptualized, organized and maintained consistently (or not) is a critical factor to the success of any project. Clay’s answer was to introduce highly trained specialists who were themselves supported by a small team of mentors. This need will be touched on again when discussing professional development. Meantime it is important to consider the

steps toward a more inclusive system, in which my own work played some small part.

#### **A CONCEPTUAL/RESEARCH BASED RESOURCE SUPPORT FOR INCLUSIVE EDUCATION**

The multiparadigmatic nature of the social sciences helps to explain some of the difficulties in making progress in special education in New Zealand. Characteristic of multiparadigmatic sciences, much time and energy has been spent in debate. Lack of consensus has slowed policy decisions. Ritzer (1980) maintains that supporters of one paradigm are “constantly defending their flanks against attacks from those who support other paradigms” (p.12). This is well illustrated by the fact that it has taken twenty-five years for the concept of inclusion to be embedded in a professional training programme (that for RTLB). While inclusion has become national policy, tensions over its implementation still remain.

The genesis of the RTLB can be found in the development of the guidance and learning units (GLU) in 1975 (Thomas & Glynn, 1976). For the first time, the provision of a separate withdrawal unit for students with significant learning and behavioural difficulties at three intermediate schools was substituted with an in-class, ecological model of support focused upon a student’s current performance in the context of the academic programme, teacher behaviour and peer behaviour.

This pioneering approach was developed using specifically trained teachers, supported by psychologists and a management committee comprised of representatives of these professionals and the schools in the district. This development represented a paradigmatic shift away from a functional limitations perspective towards a more inclusive/ecological view. Aspects of this model were incorporated into the subsequent training of Guidance and Learning Unit (GLU) teachers. The model of the GLU teacher was based also on the theory of applied behaviour analysis that postulates that behaviour is a function of the environment in which it occurs and is shaped by its antecedents and consequences in that environment.

At the same time as this development was taking place and the model was being adopted in other areas of the country, separate special classes for children with learning and behaviour difficulties were maintained in many schools (Brown & Thomson, 1988). In fact, psychologists supporting GLU teachers continued to make recommendations for placement in such separate facilities whose *raison d'être* could be explained by the functional limitations model. A new paradigm was emerging but the established one remained firmly in place.

It was in this decade from the mid-seventies to mid eighties that other evidence of challenges to the thinking and service delivery of a functional limitations model in special education were apparent. In 1975 a number of psychologists in the New Zealand Psychological Service withdrew from a national survey on learning difficulties because they would not conduct standardised intelligence tests (Brown, D. personal notes, 1974). In the same year as Acting Chief Psychologist the writer withdrew a long-standing request for funding to standardize the Wechsler Intelligence Scale for Children on the grounds that there was no clear educational purpose in its use (Brown, D. personal notes, 1974). By 1985 as Director, Special Education the writer issued a memorandum to remove the requirement of standardised intelligence test scores for access to special education resources. Implicit in this decision was the recognition that differential diagnosis and categorization through psychometric assessment were inadequate methods of identifying and addressing educational need, reflecting an inclusive/ecological paradigm. Evidence, however, of the co-existence of the two paradigms was the continuation of special classes and schools.

In the late 1980s there was a move to close many special education units and return students, teachers and resources to the mainstream (Brown & Thomson, 1988). In Wellington, in particular, special school principals, with the support of colleagues in the school inspectorate and the Psychological Service were a driving force in disbanding segregated special facilities. Impetus for this move toward more inclusive education came from the growing human rights movement throughout the Western world, although it was to be another decade before the rights of individuals in society were recognized by law in New Zealand with the passage of the Human Rights Act (19 August, 1993).

As Brown and Thomson (1988) demonstrated the move from segregation to inclusion did not proceed evenly across the country. There was wide variation in the rate of closure of special schools and classes evident across different geographic areas despite a national special education administrative structure. This diversity is still evident today with, for example 29 Auckland RTLB teaching closed or partly segregated classes while three remain elsewhere in the country. This diversity in service delivery demonstrates the co-existence of two opposing approaches that reflect different paradigms – inclusion reflecting an ecological approach and segregation reflecting a functional limitations approach, and the resilience of special education in avoiding change.

The disestablishment of the special classes was a step toward inclusion. It released the teachers to support their students in mainstream classrooms. These ad hoc arrangements resulted in a diverse range of provisions but with the special education teacher still having the prime responsibility for students identified on her roll. These positions were later to be recognized formally as Resource Teachers Special Needs (RTSN).

In 1988 the Department of Education closed Campbell Park School, a large residential school for boys with behavioural and learning difficulties situated in Otekaieke Valley in Central Otago. In many ways this was a turning point for special education in New Zealand. The special residential schools had been a long-standing feature of segregated education and Campbell Park in particular had withstood a number of enquiries into its utility and appropriateness. A significant number of the students at the school were young Maori from urban centres in the North Island. It was no longer seen as appropriate to uproot these youngsters from their culture and community and segregate them from the rest of society. The move to close the school is further evidence of the growing influence of the inclusive paradigm and stood as a signal that change was coming.

The closure resulted in the next step toward developing a within-school resource for special education. Following strong advocacy from the writer's team in the Special Education Division with The Treasury (which usually allowed very

limited transfer of funds made from savings) funds saved from the closure of Campbell Park were transferred directly to the schools to which the students returned. This allowed the development of within-school “support teams” and individual funding.

A joint project team was established under the writer's chairmanship with personnel from the Department of Education Special Education Division and staff of Auckland and Otago Universities. Seventeen school based support teams were established with researched models in Auckland, Tauranga and Dunedin (Moore, Glynn & Gold, 1993). Teachers selected for their existing skills and knowledge of special needs, together with effective interpersonal skills were to be trained to “maintain students in the mainstream by supporting classroom teachers in the development of their resources and programmes for students” (Moore & Sheldon, 1989, p.5). Support teachers were to be advised and supported by psychologists from the Psychological Service. By 1990, 69 schools had support teams, though it isn't at all clear how many were still working to the intended, inclusive model.

The implementation of within-school support teams enabled the return of students to their local community school and provided support to enable the teachers and schools to create classrooms that met these students' educational needs. In a review of the operation of support teams Moore, Glynn and Gold, (1993) noted a number of concerns:

- the majority of principals selected staff without consultation with special educators and failed to provide training for fully one third of appointees;
- many principals failed to ensure the establishment of a management team to support the specialist teacher;
- secondary schools were less likely to make provision for training and more likely to use withdrawal rather than the intended teacher support model. They were also less likely to have a management committee to support the teacher;
- where support teachers were trained and supported by an active management committee, they were more likely to engage in the intended in-class support and less likely to have their role “eroded into pupil withdrawal and one-to-one remedial tutoring” (p.201); and

- parental involvement was minimal.

Despite the careful implementation, central administrative support and funding, there was a drift back to the functional limitation paradigm and segregation wherever teacher selection and training, and management committee support were inadequate. This was particularly evident in secondary schools. The drift away from the model was also a result of what Mitchell (1999) calls the centripetal / centrifugal tension. With the move away from central to local operational control, principals were free to avoid the policy requirements and many did, a phenomenon discussed later in this paper.

The universities' team (Moore & Sheldon, 1989) noted the influence of the Curriculum Review (1987b) and the Draft Review of Special Education (Department of Education, 1987) in the development of the support team model.

The Draft Review stated, "To achieve the ultimate aim of normalization through mainstreaming it will be necessary to move to a single stream of education with special education acting as a support service" (p.93). Among the proposed sequential steps to achieve this aim, the review suggested, inter alia:

- decisions on educational planning including resource allocations to be developed as far as possible for local action within national guidelines.
- introduction of procedures whereby parents and the community can become more involved in planning and participation in special education. It will be necessary to ensure that cultural and ethnic differences are catered for.
- a comprehensive review of pre-service, specialist and in-service training for all involved in special education, including non-teaching staff.
- the recognition of educational practice based on individually assessed needs and teaching programmes provided in a form that permits accountability.
- the establishment of a significant number of special education support units based upon the guidance unit model and aimed at the generic support for students with special teaching needs already in regular educational facilities.

The Draft Review of Special Education had set the scene for fundamental changes in special education. Jack Bardon, one of the most influential special educators in the United States at the time and a writer on international developments in special education commented that “The proposal capitalizes on at least two decades of socio-political ferment related to the needs and rights of children ... and recognizes and proposed approaches ... based on current expert opinion and the body of research” (personal communication, 29 June, 1987). It had led to alterations of the Education Amendment Act 1989, ensuring all children in New Zealand would receive education as of right.

However the Draft Review was put on hold with the arrival of Tomorrow's Schools; a reform of administration moving New Zealand schools from central to individual school control. In reviewing progress in special education since the Draft Review, Butterworth and Butterworth (1998), noted that three recommendations survived the reform process of 1988-89:

1. to ensure that educational provisions for students with special need were as normal as possible;
2. to establish a process involving parents, the community, the students, and educators to decide the best way to assist any student; and
3. to emphasize individual assessment and programme development (p.189).

The needs of special education were considered too complex in the rush to implement the Tomorrow's Schools reforms (Brown, D. Personal notes, 1989). This meant that the Tomorrow's Schools reforms and the subsequent curriculum reforms did not specifically address special education. They did however have major implications for it, both in the understanding of how successful learning occurs and in the specification of schools' responsibility towards student learning.

In 1996 the New Zealand Government announced a new special education policy, Special Education 2000. This policy can be seen to encompass the recommendations of the Draft Review of Special Education (Ryba & Annan, 2000) - the removal of administrative categories of disability, national guidelines for schools to set priorities for the allocation of resources for special needs, a new

emphasis upon teacher training to meet special needs in regular schools and classes, support systems for mainstream settings, in-service training for regular class teachers, and specialist training for resource personnel including an urgent need “in establishing support for students and teachers” (p.91).

The developments in curriculum and administration in the intervening years had provided a more facilitative climate for such a policy although its implementation has not been without challenges will be explained elsewhere.

In Chapter Three of this thesis there is a description of a programme to trial the utility and methodology for a consultative support for teachers in secondary schools (Brown, 1992). In the concluding chapter of the report on that programme the following observations were made:

- skilled consultant teachers are required who are credible to principals and teachers;
- the preferred consultant should be from outside the school itself;
- the consultant must have high-level skills in collaborative consultation;
- postgraduate training is required (suggested four 50 hour courses);
- the consultant teacher would work directly with class teachers; and
- a cluster of eight to nine schools would be manageable (for one consultant) (p. 145-147).

### **THE RTLB PROGRAMME**

In 1998 500 special education teachers in New Zealand schools (special, experience and assessment class teachers and teachers providing itinerant special needs support in learning and behaviour) were translated into Resource Teachers: Learning and Behaviour (RTLB). In addition approximately 225 new positions were created to ensure a teacher: student ratio of 1:750 (Brodie, 1998). This is a provision to support students with mild to moderate need. The policy also provides additional resources and support for students with high to very high

need. In establishing these RTLB positions the government acknowledged the importance of specific training. This important need had been stressed earlier in the Draft Review and in the report on support teams by Moore et al., (1993).

The Ministry of Education and Specialist Education Service (SES), who were given the responsibility for providing the training to ensure these teachers were able to carry out this new role, decided that training needed to be at a graduate/post graduate level, providing the teachers with a meaningful addition to their existing qualifications (Brodie, 1998). The SES contracted a consortium of three universities, Auckland, Waikato and Victoria University of Wellington, to devise and implement a professional development programme for RTLB that would consist of four (50 hour) papers at a graduate or post graduate level (depending on the prior qualifications of the RTLB).

The programme would be designed so that on completion the RTLB would have achieved the following graduate profile:

1. work to a high professional and ethical standard;
2. recognize and promote the bi-cultural nature of the New Zealand education system;
3. work to ensure equitable educational opportunity for all learners;
4. follow an educational model;
5. work to a collaborative consultation model;
6. be skilled practitioners and promoters of effective teaching skills; and
7. be reflective practitioners.

FIGURE 1. A CONCEPTUAL VIEW

**TRAINING**

**DELIVERY**



This graphic representation is consistent with the requirements of the SE2000 policy that the RTLB take a pivotal role in the establishment of inclusive education in New Zealand. The professional development programme designed to ensure the RTLB are equipped for this role identifies five distinct themes.

*A collaborative consultative model of problem solving in service delivery*

For many of the teachers undertaking the role of the RTLB there will be a major change in the way they work. As Glynn (1998) succinctly puts it "The RTLB has the challenging task of supporting all those 'other' teachers to take up their individual and collective responsibility for the learning and behaviour of all the students in their classes and school" (p.5). This approach of working with others as agents of change is consistent with the ecological model that recognizes that the learning and behaviour of students is a result of the interaction between the student and the learning context. If change is to occur it will be as a result of acceptance of this concept. An important aspect of this theme of the programme derives from a constructivist view of learning, stressing that if effective and lasting change is to take place, it will do so when the class teacher has played a major role in defining the problem and developing the solutions.

*A focus upon an inclusive teaching philosophy which recognizes and values diverse strengths irrespective of age, gender, ethnicity, ability/disability*

The fundamental notion of inclusive education is that it is the task of the school and its community to create environments that meet the needs of all learners. (Stainback & Stainback, 1990). This requires classroom teachers to cater for the diverse range of students in their classrooms and for RTLB to support them in developing and maintaining teaching practices that create inclusive classrooms.

The RTLB programme includes a range of inclusive teaching strategies including cooperative learning (Johnson & Johnson, 1989b), strategic teaching (Brown, 1992), reciprocal teaching (Westera & Moore, 1995), Hikairo Rationale (Macfarlane, 1997) and peer tutoring (Medcalf, 1995). Not only are the RTLB required to implement effective programmes using these methodologies among

others as part of their course work, but faculty teaching in the programme model strategies, especially cooperative learning, in block training sessions.

To assist in this process, a book which had been produced in desktop form in previous years was published (Brown & Thomson, 2000) and a video production involving teachers in primary and secondary schools was made (Brown & Thomson, 2001a).

*An educational / ecological approach to assessment and intervention, utilising applied behaviour analysis and data based decision making strategies*

As this approach places emphasis on the learner in interaction with the learning environment, the RTLB must now be able to analyse the crucial features of this environment in addition to the characteristics of the learner (such as academic performance) with which most RTLB are more familiar. TIES II, the Instructional Environment System (Ysseldyke & Christensen, 1993) was adopted as a fundamental assessment instrument that enables the RTLB to identify a student's instructional needs within the learning environment.

The applied behaviour analysis perspective is also adopted in the programme. There is an emphasis on changing behaviour by functional assessment and intervention in the context in which the behaviour is occurring. An understanding of how behaviour is shaped by both antecedent and consequent events is therefore required. A commitment to data based decision-making and evaluation is fundamental to such an approach.

*Acknowledgment of cultural values and preferred practices from within a Maori world view*

The need for RTLB to be effective in supporting all teachers of Maori students is clearly evidenced by the high representation of Maori among students experiencing learning and behaviour difficulties (Macfarlane, 1998). There has been a commitment in the development and delivery of the programme that RTLB have an understanding of Maori perspectives on human development, learning and teaching and the implications of honouring the Treaty of Waitangi, especially

Article Two (a) which advocates the right to Maori to define and control all those things which are important (tāonga). This included recognition of the right of Maori to define and control what counts as tāonga in the field of education, including both curriculum content as well as pedagogical practices.

### *Reflecting on and evaluating professional practice*

The programme encourages RTLB to reflect on their professional practice in a number of ways. They are encouraged to consider their practice in terms of its effectiveness, its consistency with their own assumptions and beliefs, its consistency with best practice and with the role of the RTLB as defined in SE2000.

Each of the four papers addresses these perspectives with 25% of the curriculum content and assessment tasks of each paper devoted specifically to cultural values and preferred practices within a Maori world view.

There is now a nationally recognized resource teacher (RTLB) position with specifically designed professional training. This position exists within a policy framework of both special and regular education that supports the inclusion paradigm. It has taken 25 years to reach this point. However, given the multiparadigmatic nature of our society, progress in achieving a national RTLB inclusive education service may still be slow.

As the professional development programme began, Brown (1998) identified a number of potential tensions for the RTLB as they made the transition to their new role. He noted “Not only must they assimilate a new model in conceptual terms, but they must also have the will to apply it” (p.12). The group of teachers taking up these new positions can be seen to represent the whole paradigmatic spectrum from a significant number who have worked and currently undertake their RTLB position in separate special classes to those who have worked for some time as itinerant teachers in a role very similar to this new one. Prior to taking up the RTLB position approximately two thirds of the group had worked in special education, largely within the functional limitations paradigm (Thomson et

al., 2000). Consequently there is a great variation in both the conceptual understanding of the new role and the willingness to engage in it.

RTLB are required by the definition of their role to work with others as agents of change for the students they support. Class teachers are primarily these agents. Many of these regular class teachers have been used to itinerant teachers removing students for individualized instruction and may struggle with the expectation that they now accept the primary responsibility for the student's programme. RTLB report responses ranging from hostility through bewilderment to ready acceptance when they attempt to develop a collaborative plan for a class based programme.

A further tension arises from strain between central control and decentralization (Mitchell, 1999). The RTLB positions were established by a national policy. The organisational structure for these positions, based on clusters, is formalized in a memorandum of agreement signed by boards of trustees of cluster schools with the Ministry of Education. This memorandum sets out the description and purpose of the position, the training requirements and the management structure. However, in the present climate of school self management, management committees have been able to deploy the RTLB in ways other than those outlined in the job description. Consequently there are a number of RTLB who currently teach full time in separate special classes for which an alternative staffing component is provided. Those in itinerant roles have management committees, some of which may have little or no understanding or commitment to the inclusive / ecological paradigm (Walker et al., 1999). Management committees act as "street level bureaucrats" (Weatherley & Lipsky, 1977) who work within the constraints of the resource provision to ensure the delivery of the policy, as they define it, which may not always be consistent with the intention of SE2000. This seems to be an example of what Rae (1998) describes as "an ongoing tension between equity as a goal and choice as a means of responsiveness and effectiveness" (p.492).

Reform in special education represents just about all the issues involved in bringing about educational reform. The solutions to

inclusion are not easily achieved. It is complex both in the nature and degree of change required to identify and implement solutions that work. Given what change requires- persistence, co-ordination, follow-up, conflict resolution and the like – leadership at all levels is required (UNESCO, 1994, p.39 ).

In a later section of this thesis the elements of professional development that made a major contribution to the training of RTLB will be brought together. The development and trialing of increasingly sophisticated professional development procedures, beginning in 1991 and culminating in the RTLB programme, will be described. The issue of educational reform raised above by Fullan and its implications in New Zealand will be discussed.

## **PART TWO**

In this part of the thesis three individual but connected and sequential studies are reported. These studies describe and review the three projects that form the stepping-stones toward a conceptual and practical contribution to the Resource Teachers: Learning and Behaviour (RTLB) professional development programme.

In the first study, The Two Schools Project, the author acted as a participant observer in a professional development programme in two secondary schools. The study confirmed three elements of support for schools, that of an outside consultant working in a model of collaborative consultation, the application of strategic cooperative learning and the involvement of school leaders in establishing a systems approach to professional development in secondary schools.

The second project Teaching for Effective Learning, was conducted with a colleague, Charlotte Thomson, to explore the transfer of what had been learned in the Two Schools Project to a wide range of primary, intermediate and secondary schools. This project examined the use of “lead teachers” as internal consultants. Thomson and Brown supported the lead teachers as mentors and co-workers in supporting sections of their school, or cross-department groups in applying strategic cooperative learning and other effective teaching procedures in their schools. Again, a systems approach was adopted. The lead teachers were trained in collegial collaborative consultation, cooperative learning and a wide range of effective teaching approaches. In this project the application of an eco-behavioural approach was explored.

In the third stepping-stone project, Developing and Implementing a Pre-Service Secondary Schools Initiative, the author explored the application of effective teaching and learning skills among pre-service secondary school trainees.

## **CHAPTER THREE:**

### **THE TWO SCHOOLS STUDY: A COLLABORATIVE PROFESSIONAL DEVELOPMENT INITIATIVE**

This professional development project (Brown, 1992) aimed to create more effective and more inclusive classrooms by encouraging teachers to use strategies associated with better learning outcomes for students, especially low-achieving students. The method chosen was a collaborative consultative model where the consultant works as a systems oriented advisor, not in the role of an expert, but rather alongside the teacher in an interactive way. This study showed that it was possible for teachers to change their practice in such a way as to increase student motivation and performance. This required the support of the 'top three' in each school, however, and an outside consultant willing to work in this collaborative manner alongside teachers.

This study began in 1991 and followed a pilot project carried out in 1990. A number of secondary schools worked with the author to investigate the value of introducing strategic classrooms, a strategic environment and the application of cognitive strategies in learning settings. Teachers in the two schools involved in the 1991 study were volunteers drawn from the staff of two of the pilot schools. Some had worked with the author during the pilot project while others were new to the programme activities.

The purpose of the project was to evaluate the introduction of a teacher development programme to secondary schools, aimed at improving student learning across the curriculum. A particular target was the lowest achieving 30% of learners. The term 'less proficient learners' was chosen to identify this group. The study explained: (a) how teachers took up the opportunity, (b) the effects of the programme on their beliefs and practices, (c) effects upon student beliefs and practices, (d) how an outside consultant could work with schools, and (e) the costs

of implementing such a programme on a wider basis. This last purpose was at the specific request of the Ministry of Education.

## **METHOD**

### **Participants**

#### Teachers

Volunteer teachers from two secondary schools participated, 14 teachers from School One and 12 teachers from School Two. The teachers from School One had been teaching for an average of 12.8 years, and the teachers from School Two an average of 12.7 years.

Teachers from both schools had all experienced some in-service training previously, but almost exclusively in curriculum material and methods. The teachers were drawn from a wide range of subject areas and nominated classes across an equally wide range as a context for their work during the project. The sample from both schools was very similar except that slightly more female teachers from School One participated than from School Two.

#### Students

It was very difficult to identify exactly how many students participated because some teachers chose more than one class for their work in this project. However, 390 students returned questionnaires that teachers had handed out at the end of the year.

#### Principals

The principals' group is defined as 'the top three': principal, deputy principal, and assistant principal. The "top three" principals' group in each school was invited to participate in the programme. They were asked to act as mentors for the programme itself. One of each team adopted the role of coordinator for leadership and administrative purposes.

## Parents

Each school invited an elected parent representative to join the advisory committee consisting of representatives of the Ministry of Education, two universities, principals and staff.

## **PROCEDURES**

In the first instance the programme lasted the second and third term in 1991. At the end of the year the schools themselves organized for the programme to continue a further year.

Teachers were offered a menu of teaching strategies from which to choose, which had been shown in the literature to be effective. The strategies were drawn from a number of sources. Cooperative learning (Johnson & Johnson, 1989b; Johnson, Johnson, & Holubec, 1994) was defined as a strategy for the purposes of the programme. The others included strategic approaches developed at the University of Kansas Institute for Learning Disabilities (The Strategies Intervention Model, 1989; see also, Deshler & Lenz, 1989; Schumaker & Deshler, 1991) and those reported by a number of other agencies and researchers (Bellanca, Fogarty & Dalton, 1991; Costa, 1991a; Derry, 1988; Jones, Pierce & Hunter, 1988-89; Lenz, Alley & Shumaker, 1987; Lockhead, 1985; Medcalf, 1989; Palincsar, 1986; Segal, Chipman & Glaser, 1985; Topping, 1989). During the programme some strategies were adapted and the teachers and the author developed some original strategies collaboratively.

Prior to the programme beginning, teachers and members of the principals' group were asked to comment on a range of questions put to them in a questionnaire and personal interview respectively. These questions formed the basis for establishing changes in beliefs and practices over the project period. On completion of the programme, teachers and the principals' group were asked the same questions, together with additional questions relating to activities, events or viewpoints which had been developed during the programme. Students were also invited to respond to a series of questions that tapped their beliefs and behaviours at the end of the programme.

During the course of the programme teachers kept reports and diary notes. Records were retained of these and responses from the consultant to teachers. Student comments and comments from some parents were kept. Classroom measures of student academic and social progress were kept regularly by a number of teachers.

Different teachers approached the task of developing new teaching strategies and creating a strategic environment in different ways. Teachers were free to incorporate those aspects of the programme that suited their teaching style. Some teachers took up the goal of developing a strategic classroom environment. Thus strategies were engaged by various teachers in various ways, from the use of single strategies such as advance organizers, through multiple strategy use, to efforts to combine a range of strategies in a comprehensive and cohesive fashion. Almost every teacher used cooperative learning as a means of delivery for curriculum material, many teachers used it as a vehicle for the establishment of strategies for teaching and to establish learning strategies.

The consultant was the author. The consultant visited each school for one full day each week for terms two and three of 1991. The programme was structured to meet the needs and requirements of each school. Both schools established a regular meeting for about one hour each week. This meeting was held at the beginning of the school day - before classes started, during the lunch hour or at the end of the day after classes were finished. In each school the consultant would meet with teachers individually to plan, discuss or advise on programme activities during regular periods, during breaks in the working day, or before or after school as appropriate to the school's meeting arrangements. Finally, the consultant was invited into classrooms on a regular basis to observe, assist or measure programme activities.

Certain agreements had been reached for the work of the consultant. The consultant was available on a collaborative basis. Teachers and the consultant worked as collaborative teams or partners. The model adopted was one of "equal expertise" with each party bringing their own particular skills and insights to the

discussions. Comments between the consultant and teachers were confidential unless the teacher agreed to share the information more widely. All teachers agreed that material gathered in the course of the project could be used in reporting the results of the work but no names would be used. The schools agreed to the use of student data being reported. Parents were informed of the nature of the programme either through regular newsletters or, in one school, a meeting of interested parents was called.

Ten teacher release days were allocated to each school by the Ministry of Education. These days were used to enable teachers to meet with the consultant in class contact time, to act as peer reviewers in each other's classrooms and to visit the other school or attend a special one day seminar with the author, requested by and arranged for the two teams of teachers. The probability of continuance of the programme was maximised by teacher ownership of new initiatives. Outcomes would be perceived as realistic, able to be repeated in the absence of the consultant as the result of behaviours that were intrinsically motivated.

In each school one member of the "top three" principals' group acted as coordinator for the programme. In addition, one or more teachers in each group acted as staff spokespersons and joined the advisory committee for the project. This committee also included parent representatives.

Through the coordinator, the consultant arranged the weekly meetings, period-by-period observations or discussions and collected diary notes. Teachers kept a diary of their work as a permanent record. A copy of the diary was given to the consultant each week (or collected and given at regular intervals). The consultant responded to each diary making use of a response sheet, delivered the subsequent week. Observation and mentoring notes taken by the consultant were handed to the teacher at the end of each discussion. The teacher was free to keep the notes or photocopy them and return a copy to the consultant, which they invariably did. From these diaries and the response sheets a log of communications was compiled. The diaries became a progressive record of growing skill both of the teachers and the consultant.

## **SOURCES OF DATA**

### **Diary notes:**

The diaries that the teachers kept were used to record information regarding student progress, teacher perceptions of the programme, and teacher/consultant interactions. The researcher kept a copy of all diary entries.

### **Survey of teachers:**

This survey was designed to assess the teachers' beliefs and practices, specifically how they perceived learning and teaching and to gain information about their current use of strategies. It was developed in collaboration with the teachers and consisted of three parts. Part One was designed to obtain demographic information, check target classes teachers would normally nominate for the programme, and to obtain information about the reasons why teachers decided to enter the programme. Part Two aimed to tap the teachers' beliefs about learning, academic success and failure, and the kinds of objectives teachers had for their students. Part Three of the questionnaire asked teachers about elements of teaching strategies which had proved to be of interest to them during the pilot programme and which were thought to offer some insight into the changes of teacher beliefs and / or teaching practice. Specific questions were asked about strategies which had proved of interest to teachers during a pilot project and about cooperative learning which many teachers had found to be of interest to them. This questionnaire was administered by the consultant to all participating teachers at the beginning and at the end of the programme. The questionnaires were examined and scored by two people with an additional person acting as an independent checker of reliability.<sup>1</sup>

### **Additional feedback by teachers through informal conversations:**

In addition to obtaining data on the teachers' responses to the programme the views and perceptions of parents and the students were also canvassed. In one

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<sup>1</sup> Details of the questionnaire and scoring methods can be found in Brown (1992). The Development of Strategic Classrooms in Two Secondary Schools.

school this was done at a meeting which also served to inform parents of the programme, the other school preferred to work with individual parents or on a class by class basis. Student perceptions were surveyed via an anonymous questionnaire. This questionnaire was designed to tap students' awareness of the programme as "new ideas" in the classroom. Some questions asked whether students recognized the teacher was using a different approach, and which particular strategies the student was aware of that the teacher was using. In order to check for other novel approaches teachers might have used unrelated to the programme, students were also given the opportunity to list additional "learning ideas" to which they might have been introduced during the course of the study. Another set of questions checked for actual use of strategies in the class and for homework by students, and also for an awareness of students in other classes using similar strategies. There were a number of questions specifically aimed at canvassing students' views on the use of cooperative learning strategies, if they liked this way of working, what they liked about it and if they would choose to work this way again in the future. In addition the questionnaire gave students the opportunity to rate and comment on the value and nature of the class programme. Feedback from teachers on a first draft of this questionnaire was used in developing the final version. It was administered to each participating class by the teacher, collated and scored by two people to address issues of reliability.

**A survey of principals' beliefs and practices:**

This was a tape-recorded interview with the "top three" in each school (principal, deputy principal, and assistant principal) at the beginning and the end of the programme. Some of the questions posed to this group were the same as those to which the teachers responded in their survey.

**A survey of students' views:**

Three hundred and ninety students responded to a questionnaire. While the responses were anonymous, the teachers who had approved the questionnaire in advance were able to see the results from their own classes.

## **RESULTS**

### **Teacher responses to the programme**

#### **Change in teacher beliefs**

Teacher beliefs changed during their involvement in the programme. At the beginning the most common attribution for school failure was to family and peer influences (38%). By the end of the programme this had reduced to 8%. In School One poor teaching strategies as a cause of school failure rose from 14% to 43%. In School Two, lack of student skill and poor learning strategies rose as attributions of failure from 25% to 50% and 33% to 58% respectively. The teachers across both schools switched from good relationships with students to good management skills (46% to 81%) and in School Two, an ability to motivate students (17% to 67%).

Furthermore, in both schools the teachers moved away from the belief that a sound relationship with students was the most important characteristic of successful teaching, in favour of teaching and learning characteristics. The change was quite dramatic being a reduction from 73% down to 23% for relationships. On its own this change in belief is a puzzling result, particularly given the increased use of cooperative learning. Changes in other attributions help to explain the change.

These results suggest that the teachers had gone beyond believing in a generic characteristic of maintaining good relationships while blaming family and peer (outside school) influences for school failure, to a more reflective and focussed approach to the teaching-learning process. Based on other responses there is no reason to believe the teachers did not still believe in maintaining good relationships with their students.

#### **Change in use of strategies**

A series of questions aimed at eliciting teacher responses that would reveal the extent to which the use of particular teaching strategies might have changed during the course of the programme revealed the following changes:

- (a) the teachers clearly developed a better understanding of ways in which students can monitor their own work, and consequently an increase in the teaching of self-evaluation skills (from 35% to 69%) and promoting peer evaluations (from 15% to 25%).
- (b) teachers increased their active promotion of cognitive strategies (from 19% to 58%) to teach text comprehension.
- (c) to help students with recall, teachers changed from the use of revision (63% down to 12%) towards increases use of cognitive strategies to improve recall (from 23% to 73%) and a new strategy which emerged that teachers called teach-reteach (offered as an option in 35% of the responses from both schools). In this strategy, the teachers traced through the lesson plan again but in shorter and faster form. This was regarded as more helpful than a brief revision as it took into account the opportunities for encoding, guided practice and corrective feedback.

The use of group-work (but specifically cooperative learning) in classrooms was assessed separately and in more detail. There was only a moderate increase in the use of group-work per se (from 81% to 92% across the two schools) though the ceiling effect is noticeable here. There were, however, major changes in the way groups were selected. There was a move toward increased use of teacher-selected mixed ability groups – in fact a complete reversal of the more typical secondary school group allocation of student selection (from 62% student selection to 62% teacher selection of mixed ability groups). The most frequent group-size was four, followed by two and three. In addition group maintenance skills were taught more often in groups at the end of the programme than at the beginning (43% to 65%). This suggests the teachers were aware of the importance of students monitoring their own work patterns and academic progress.

Overall, by the end of the programme teachers from both schools claimed to use all the following strategies more often than at the beginning: advance organizers, graphic transformations, paraphrasing, post organizers, class displays, cueing strategies, concept charts, spelling strategies, and self-monitoring, and of course the teach-reteach strategy developed during the programme. This set of results

was compared with student nomination of different strategies observed in their classrooms. The majority of the students recognized the use of the specific strategies listed above.

Some more general teacher attitudes regarding the programme were assessed during an advisory committee meeting. No teacher commented negatively about the programme in terms of its values, content or interactional style. During this meeting the committee also had the opportunity to ask questions. During the discussion the item that most frequently occurred concerned involvement of other teachers in the programme. Other teachers expressed considerable interest in the programme. The next most common issue raised concerned evidence of student progress. Specifically it was noted that it was not only academic performance that had improved but also the general tone of the school in terms of staff-student relationships, fewer 'social management' issues and fewer referrals to specialist assistance, particularly from the programme participants.

Teachers generally expressed positive attitudes about the programmes in terms of finding the content stimulating and challenging, the consultant-teacher interactions non-threatening, and the feedback they received from the consultant effective.

### **Perceptions of students and parents**

#### Awareness of strategies use

The majority of 390 students in both schools recognized that their teachers had used novel strategies during the year (75%). However, on a class by-class basis it appeared that in some classes all students were aware of the use of novel strategies, while in other classes only a minority of students were aware of this. It is possible that the students did not know that the strategies used represented a novel approach for their teachers that year.

A separate question tapped the recognition of specific strategies. Again cooperative learning was treated separately. There were large differences in the extent to which different strategies were recognized (4% to 71%). The variation clearly depended upon the choices teachers made in the use of strategies. Only

cooperative learning was recognized by almost all the students in both schools (97%).

An open question that allowed students to write down any new learning strategy that they had used for the first time that year was included to ascertain whether teachers had introduced additional novel strategies, or that students had simply failed to recognize a particular label in the previous question. No item received more than two nominations except for the use of (operant) flashcards in one class in School One.

The next question tapped students' awareness of new ideas to help with homework to assess to what extent the students adopted the strategies for themselves and used them independently. The results showed that a substantial proportion of the students were reporting they used strategies independently at home (61%). There were some between class differences in the level of use by grades, with junior classes (Years 9 and 10) using strategies at home more readily than the Year 12 classes. Year 11 classes presented a more balanced picture, but even here in some classes all students reported using the strategies at home.

The students were also asked if they would use any of the strategies to get ready for examinations, to see if the independent use of strategies was more likely to occur in stressful times. More students thought they would use the strategies for exam preparation at home than reported they were using them to help with homework (71% vs 61%). The increase in anticipated use was the same for all classes, including senior classes. This question was followed by one that asked whether students had already used the strategies. The questionnaire was administered very close to examination time so this question was thought highly likely to assess actual student behaviour. Overall a greater number of students reported already having used the strategies at home for exam preparation than not (60% vs 38%). The figures were almost exactly the same as those stating use of strategies for homework (61%). This figure is therefore likely to reflect actual use of strategies rather than reflect mere good intentions.

To see whether students were further generalizing the use of strategies the next question asked if they were using the strategies in any other classes. Generalisation appeared to be quite substantial with the majority of students reporting use of strategies in other classes (54% and 68% for Schools One and Two respectively).

Student views of cooperative learning were considered important given that all the teachers used this method of teaching. A series of questions tapped students' perceptions of their behaviour during cooperative sessions as well as their attitudes towards cooperative learning.

The first question asked to what extent students helped, received help or ensured the whole groups learnt during group or pair work. The results suggest that the students benefited at least as much as they contributed during group work. On average, the students claimed to have helped each other (58%) and to have received help (71%). They also claimed to have tried to ensure the whole group worked well (61%). What is interesting is that the senior school, in competitive examination classes had similarly high percentages having given help (66%), received it from group mates (67%) and sought to improve group achievement (58%). These senior classes also claimed that cooperative learning methods helped them to learn (85%) somewhat higher than the overall figure (70%).

The next question revealed that almost all students enjoyed working in groups at least some of the time. When asked if they would like to work in groups again the following year the majority of the students indicated that they would – at least some of the time (85%).

The following questions asked students if they liked sharing ideas anyway – to check against the possibility that one reason for disliking group work was because of the need to share ideas. Eighty percent of the students said that they liked sharing ideas.

An open-ended question assessed specifically what students liked best about working in groups or in pairs. Sharing ideas, working together, and that it

enhances learning were the most commonly volunteered responses across all classes and the two schools. The senior students (Years 12 and 13) also valued highly that it provided them with the opportunity to discuss matters.

The issues nominated most commonly when asked what they liked least about group or pair work were (i) 'nothing' (the most frequent response) (ii) skills needed to work successfully in groups, and (iii) the problems of non-contributing students were the next most highly ranked. The reasons given for the least liked elements of cooperative learning, the two above and others less frequently offered are either the result of a lack of skill in working in groups (a curriculum issue in New Zealand) or management issues which are entirely within the capacity of teachers to correct.

In addition to assessing the reasons why students liked or disliked cooperative learning they were also asked if group or pair work helped them learn, and why. The majority of the students (70%) reported that cooperative learning helped them learn. This was especially true for the senior students. The open-ended portion of this question assessing reasons or explanations why group or pair work helped them learn revealed that most of the students thought that cooperative learning helped them approach problems in new ways – broadened their ideas and approaches to problems. This included responses that suggested that the group discussion somehow helped them understand the problem and lesson material better, because their peers transferred it into their own 'language'. Other frequently volunteered factors were that the process of collaborating, and collaborative skills, improved work, and help available in the group helped students learn.

Though very few students said that group and pair work did not help them learn better (only 10%), the reasons given are of interest. The most common issue put forward was that students simply preferred individual work, followed by comments about other students in the group being off task or not contributing (again, a teaching management issue).

When asked who should make the decision about group formation and how, the largest response group indicated that it should be the teacher (38%). There were however also quite a number of students who disagreed with that (25%). A large number of students did not respond to this question. Those who approved of teachers choosing groups gave as reasons that it would create a better working environment and to ensure heterogeneity of groups, and senior students also suggested fairness. Those who did not support teacher chosen groups listed as their most important reason for this the desire for homogeneous groups.

The last three questions assessed the students' more general attitudes to the programme as a whole. When asked if they would like their teachers to use more ideas to help them learn better 79% and 87% answered with a clear 'yes' in Schools One and Two respectively. The majority of students in both schools (62%) also thought that they had done better that year by using the programme strategies, and they also felt better about their work (62%).

In sum, students largely found all strategies useful, beneficial, and liked them enough to use them independently for their homework and examination revision.

### **Perceptions of the Principals**

The views and opinions of this group were assessed in interviews and discussions before and after the programme. The nature of the group and the discussions meant that on most issues a wide range of opinions were voiced. Differences in responses between the initial and the final interview does not necessarily mean that the principals had changed their mind, rather it may be more indicative of the nature of the conversation, and the issues that currently occupied this group.

All of the principals cited the success of the earlier programme in an initial effort to interest staff in the present programme. Principals supported and encouraged teachers. Three of the six thought that the programme constituted an important training opportunity.

When asked about events and factors that occurred as the programme developed two thirds of the principals commented on the enthusiasm, sense of achievement and sense of ownership by the teachers involved. There was also strong consensus among the group that, though time pressure was an issue, this programme was associated with little additional pressure for half the group initially, and for five of the six members at the final interview. This was paralleled by a sense of support derived from the positive reaction from staff to the programme.

Principals saw an opportunity for forward planning emerging from this initiative in terms of maintaining this programme in the future. At both times the group saw it as part of their role to encourage staff development. They all believed that collegial management of staff development programmes was desirable and possible at both times, but there was a shift across time away from a view that some direction was required in such programmes towards a unanimously expressed view that cooperation and interdependence were important.

Similar to the teachers, the principals expressed a strong focus on teaching and learning. In this regard they also expressed an appreciation of the level of commitment from their staff.

Principals recognized that their involvement in the programme was important as well as the support and regular visits from a consultant. The arrangements as planned in the programme were generally seen as appropriate and helpful. There was a subtle shift in this regard though where some saw themselves more in a leadership role at the beginning of this project than at the end. It may simply have been a less salient issue at the end because of the collaborative nature of the programme.

For those questions that were common to teachers and principals, the following points are noteworthy. The teachers did not change their view about the skills they needed but the number of principals who thought that teaching strategies were important increased. In contrast to teachers who were focussing more upon teaching-learning issues than upon their personal relationships with students by the end of the programme, principals placed more importance on relationships at

the end of the programme than at the beginning. The teachers' beliefs were echoed in the principals' responses by an increased appreciation generally of the importance of developing and maintaining teaching skills at a high level. Like the teachers, the principals shifted somewhat in terms of their beliefs about factors that contribute to academic failure by students. As did the teachers, the principals attributed causation for failure to families and peers less at the end of the programme than at the beginning, as well as being less likely to blame a lack of intelligence and ability.

On the question of what kind of consultant would be ideal, teachers as well as principals agreed that ideally there would be both an internal support person as well as an external consultant. The consultant was seen to have several important advantages:

1. expertise and knowledge base different from that of teachers;
2. freedom from administrative constraints;
3. access to outside information and literature;
4. for training purposes it was seen an advantage that teachers should have direct access to a consultant for information and feedback rather than through an internal support person.

### **Consequent Professional Development Activities**

Two sets of data were collected on consequential professional development programmes. These were based on the content and style of the original project. The first was that of staff at the two schools who elected to join follow-up programmes. Of the 26 teachers originally involved in the programme, 18 elected to join a follow up programme in 1992.

The second set of data was gathered from enrolments at subsequent programmes presented by the author and promoted by the colleges of education in the region, or by individual schools or collections of schools. These organizations had become aware of the opportunity to undertake seminar/workshop training or consultation based upon the Two Schools project.

During 1992, these programmes involved 221 teachers in credentialed seminars/workshops ranging from 36 to 100 hours duration. A further 118 teachers attended certificated 12 hour workshops. Teachers attending the programmes came from 62 schools. In addition, seven schools arranged for full staff training programmes ranging from half-day workshops to full day or two-day activities. A mentoring programme was provided for teacher support staff at one college of education comprising 24 hours of workshop activity.

During 1993, a further 172 teachers attended credentialed or certificated seminar/workshops and one school arranged a 20 week consultation programme for 12 staff. The author conducted all these programmes.

## **DISCUSSION**

Teacher completion rate of the original Two Schools programme was very high. Twenty-six of the 31 who began working in the original programme completed. Not all teachers were as involved as others, but those who left the programme did so largely because of pressure of other work. Enrolment in further development programmes that originated from this programme have since indicated a marked trend toward greater teacher involvement in the work, both in numbers and intensity of involvement.

The move away from traditional, didactic professional development programmes toward strategic, group-oriented programmes was a gradual one for most teachers. Working with the consultant, the teachers established the programmes which suited their own purposes best, trialled the strategy and made decisions about how much further to take that strategic approach or to trial a further approach.

The teachers reported their results in a number of ways. Diaries were used for week-by-week reports of student progress. Improvements in student outcomes were reported which suggested a clear and reliable trend of improvement in academic and collaborative skills.

The teacher questionnaires show a number of trends. The first is a greater recognition among the teachers of the need for and importance of developing cognitive strategies for effective learning. This was demonstrated in questions that sought to tap teacher beliefs and those which asked teachers to report their use of strategic approaches and the results they obtained from them.

There was a very clear indication of the use of cooperative groups. All but two teachers in the total 26 reported some degree of cooperative teaching in their classrooms. Many teachers had already begun using these groups during the pilot project and in the interval between the pilot and this project. The most important trend was in the way the groups were used. More teachers used appropriately sized groups, allocation to groups was more teacher directed and targeted at heterogeneity. Though the trend was less marked, more teachers directly taught the essential collaborative skills needed for effective group work. This was an issue that was taken up in later programmes in the stepping-stones to RTLB professional development. The New Zealand Curriculum Framework (1993) had by then included cooperative and social skills in the list of essential learning skills.

At the final advisory committee meeting of the Two Schools project the consultant took detailed notes of the comments made, leaving the teachers to interact freely with the officers of the Ministry, the Ministry advisers and the parent representatives. What emerged at these final meetings was a strong advocacy for continuance of this kind of programme; the value of collegial, across department development opportunities; and strong statements about the advantages of the programme for students and teachers. The value to schools of having a consultant was stressed.

Teachers cited examples of success for students and their own feelings of confidence and continuing interest in the programme. Some remarked upon the value of the programme as a professional development opportunity. In this context the need for a different focus/emphasis in preservice training was raised and some comparisons were made between the programme as training, compared to college of education training patterns.

The principals' group or "top three" in each school played an important part in the programme. Without their support, the liaison with staff, the encouragement they gave and their endorsement of the programme it would have been a much more difficult exercise.

In their responses to pre and post programme interviews, the principals' group saw value in the programme from the beginning, based upon their experiences of the pilot project. They maintained this view through to the concluding interview, indeed strengthening their comments on staff enthusiasm and the need for a collaborative planning approach. With respect to planning, the principals emphasized their intentions to plan ahead, to commit resources and support to continuance of the programme into the new year.

Principals did not find the programme brought pressure upon them. They found in some senses the opposite - that staff enthusiasm and commitment was a source of support for them. Their interest in sharing management of the programme with staff was notable. The principals began by believing that student success and, as a corollary prevention of student failure, lay in the hands of teachers. They firmed up this view, noting the need for good teaching strategies.

An encouraging feature of the programme outcomes was the systems based approach which prevailed throughout. Rarely was an individual student identified as presenting a particular challenge to teaching. On the one or two occasions this did occur, it was within the context of classroom programmes. This systems model was maintained across the curriculum with teachers of various subjects working together on lesson plan discussions, the application to the learning process of the principles of cooperative learning groups or of various strategies.

This systems model probably developed through the way in which the programme was introduced. To some extent the difficulties reported by Glynn, Moore, Gold and Sheldon (1992) were avoided because the consultant was from outside the schools, had a clear systems focus, was credible to the principals and staff, was inclusive of all students while targeting a particular group of less proficient

learners, and had a clear and unambiguous role completely insulated from other teaching or administrative demands.

### **CONCLUSIONS FROM THE TWO-SCHOOLS STUDY**

From this study it was possible to draw a number of conclusions:

1. It is entirely possible that teachers can be supported to reorient their delivery of curriculum material and the environment of their classrooms in accordance with the developing literature on effective classrooms. A further feature of the work in the two schools has been the collaborative, cooperative interaction of teachers with the consultant.
2. Teachers can effect such a reorientation in a fashion which is personally reflective upon their teaching practices.
3. The collaborative, cooperative style of work developed among the teachers reflected the cooperative group learning programmes which the teachers were establishing in their classrooms.
4. This style of programme is successful in improving student performance and highly satisfying to both students and teachers.
5. The organisational structures of secondary schools, which are traditionally subject driven and hierarchical, did not prove an impediment to collegial, across the curriculum support for teachers by teachers. The critical factor enabling this development appears to have been the unifying influence of a highly focused task-oriented group.
6. The support of the “top three” is a necessary component in the successful development of such a programme.
7. An outside consultant who has established credibility and who is willing to work collaboratively with staff can easily interact at all levels of the school organisation. Furthermore, teachers are willing to work with a credible outside consultant both in and out of their classrooms.
8. The economics of establishing such a programme in other secondary schools appears to be well within the resources of current educational funding, depending upon how priorities are set.
9. Consultants for such a programme must be proficient in collaborative consultation, the application of up-to-date curriculum delivery methods and the interpretation of emerging research and development literature to teachers, in their classroom settings.

These conclusions were presented to the Ministry of Education.

## **CHAPTER FOUR:**

### **THE TEACHING FOR EFFECTIVE LEARNING PROJECT**

This programme is the second in the series of developmental steps toward a comprehensive programme for consulting teachers. In this section attention is drawn to the developing recognition of the need to enhance teacher skills through the use of collaborative consultants, capable of working with colleagues in their own schools.

The conceptual approach adopted in this step was based upon a heuristic exploration of collegial support within the resources of a school as an entity. In the previous step, the Two Schools Project, it was possible to demonstrate how a cohort of teachers could be supported in their efforts to improve teaching and learning via the agency of an outside consultant. In that study the conclusion was drawn that a national programme based upon the model developed during the study could be instituted. By 1994, the Ministry of Education was still struggling with its management of special education within regular schools. The newly developing policy, which would lead to the establishment of the RTLB service, was still in the planning stages with no clear conceptualization of how to give it life. At that stage, the Ministry had as its focus, the improvement of teaching and learning in a generic sense through professional development within schools.

Specifically, in their Request for Proposals: Teaching for Effective Learning, the Ministry (Ministry of Education, 1994) sought to “Make available professional development opportunities to staff ... to improve their understanding of current learning theory, and translate this theory into practice. The professional development programme should take into account the needs of individual learners and barriers to learning for groups of learners” (p.2). This was entirely consistent with the Education Act 1989 and the New Zealand Curriculum Framework (1993)

that required all students to be educated regardless of ability or disability. While the programme was envisaged to focus upon strategies for teaching and learning “To foster effective learning” (p.3) rather than curricular content, the model for the delivery of the programme was a traditional one involving individual teachers undergoing professional development across schools or whole staff teams within schools.

In responding to this opportunity, and with the support of some officials within the Ministry, a different proposal was suggested which went beyond offering individual or school wide workshops, allowing teachers “to examine existing good practices and theory and be supported as they try new approaches in their classrooms” (p.4). The proposal suggested a programme would be developed to enskill a cadre of in-school consultants. This would act as an opportunity to further explore models for the on-going development of the proposal first put forward in the conclusions of the Two Schools project.

In order to do this, it was recognized that the programme teachers would need to be already skilled enough not to require some form of basic preparation in the theoretical foundations and practices of effective teaching-learning processes. Rather, the focus should be upon methods of establishing a collaborative relationship with colleagues, within an inclusive model and following an ecological approach to interventions. For this reason it was proposed that teachers recruited to the programme would be graduates of the credentialed or certificated courses established and delivered following the Two Schools Project (1992). These courses had been established and delivered by my colleague Charlotte Thomson and myself.

The following extract from the proposal, which won acceptance from the Ministry, illustrates the foundation philosophy and intentions of the programme.

### **TEACHER DEVELOPMENT**

As teachers move to deal with the challenges of the new curriculum, it is essential that they feel part of the solution and not be identified as part of the problem.

This teacher development proposal sets out a programme that is based on four years of trialing and development in a number of districts within New Zealand. It follows successful practice in teacher development that is inclusive of teachers' ideas and regards them as expert in curriculum management and capable of becoming highly proficient in the most effective methods of teaching and learning. Details of the model are set out elsewhere in this proposal.

A clear preference among schools for within school development together with support from a consultant has been shown (Brown 1992). It is also clear that where schools evolve a consistent, internal professional development programme, some degree of support is still necessary. For this reason it is important that the reliance on the outside adviser, though necessary, be reduced and the resources of the school be increased to an optimal level. There is evidence (Moore, Glynn & Gold, 1993) that where support teachers are placed in secondary schools there is a rapid and unfortunate behavioural drift away from the targeted strategies of in-class support and toward administrative or student withdrawal programmes.

To correct this concern it is proposed that the professional development programme be established in such a way that the main focus is upon the within school learning environment. In particular, the teachers involved should see themselves as a collaborative, problem solving team. This level of "ownership" is likely to ensure the development programme remains collegial and does not become a top down exercise with little teacher commitment at the classroom level.

It is also clear that there is a need for involvement from the leadership group within a school for staff development to work well (Fullan & Newton, 1989). For this reason it is important that schools entering into a development programme be ones where such support is present and where it is likely to remain so.

An important dimension of the programme would be the assistance given to teachers to develop improved strategies for evaluating programmes and assessing achievement in an ongoing fashion. Using good assessment practice and principles within the context of the curriculum framework would assist teachers to remove barriers to achievement, particularly for students who are Maori or who

come from lower socio-economic backgrounds. The application of an ecological model and following the "dual curriculum" (content knowledge and strategic skills) noted by Schumaker and Deschler (1988), would meet many of the demands of the National Education Guidelines (Education Gazette, 30 April, 1993).

Finally, since it is evident from the research that schools can significantly influence student attitudes and academic outcomes (Mortimore & Sammons, 1987) professional development is likely to be more successful in schools where the organizational structure supports effective teaching.

All these points need to be understood by teachers. For too long teachers have been separated from the research that provides the fundamental grist of the work they do. Any staff development programme should encourage teachers to look for the principles and evidence behind what they do. Unless this is done, staff development programmes will continue to offer new tricks for old and to regard the profession of teaching as a mechanistic collection of separate actions without any coherent rationale.

#### **AIMS OF THE PROGRAMME**

The first aim of the programme was to assist teachers to develop further, effective teaching/learning strategies consistent with the demands of the new curricula. In particular, the programme would aim to ensure teachers are exposed to and trained in the growing knowledge and practice base on teaching problem solving, thinking skills and independent learning strategies within a context of co-operative learning and self management.

The programme also aimed to establish school based development that would assist schools to become self managing in professional development. It would take advantage of an established foundation by using co-coordinators from schools, which through their own efforts, have already demonstrated a commitment to improving the teaching/learning process, or where individual teachers in those schools have done so (p. 3-4).

## **METHOD**

### **Background**

The programme was established in such a way that the schools were as closely aligned with the programme as possible. Principals were required to commit to support the programme and nominate teachers (lead teachers) who were already skilled at some level in strategic cooperative learning. Principals were required to commit in writing to supporting their teachers in the yearlong study programme, allowing them release days to attend seminars and to work with colleagues in the second part of the year. Principals also had to agree that they would support their teachers as internal consultants to staff in their own school and in neighbouring schools in the subsequent year.

### **The Teachers**

Twenty-six teachers were involved from as many schools within the central area of New Zealand. Twenty-four of the 26 teachers had engaged in at least 50 hours of coursework on strategic cooperative learning.

## **PROCEDURES**

### **Seminars**

The teachers attended seminars at the end of the preceding year and before the start of school in the year of the study. The school principal or deputy principal also attended one of the two days of seminar work in January (before beginning the school year). This was requested of the principals to ensure the school fully understood the programme. Further seminars were held over two days in the middle and toward the end of the year.

The cohort of teachers was divided into two teams of 12 or 13 teachers. This established two regional groups that were further divided into five district teams. The purpose for this was twofold. First, to ensure the group size was manageable for two directors, i.e. a ratio of 2:13. District groups were used for networking, bringing the ratio down to one or two directors to five or six teachers, depending

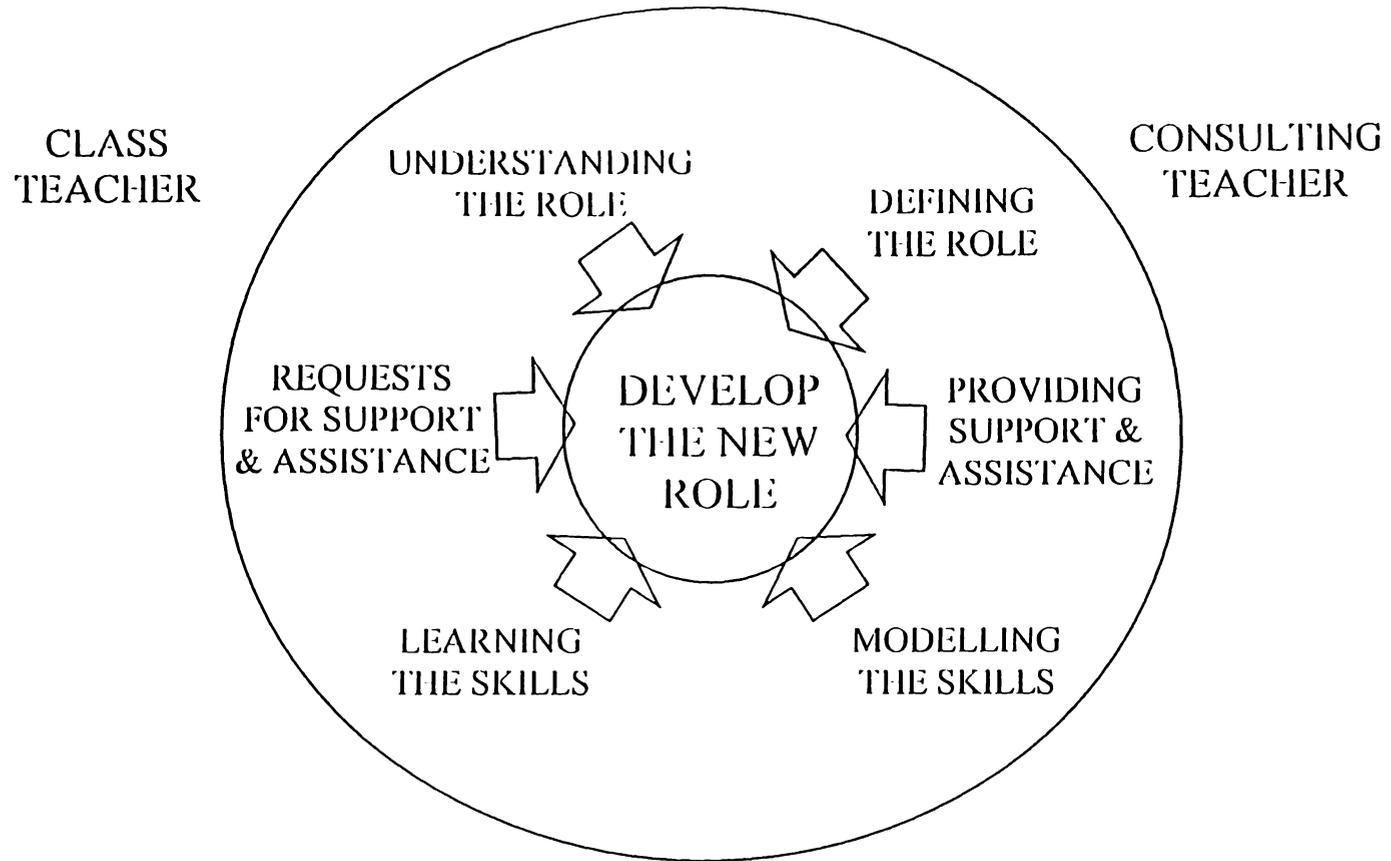
on the way the visit was organized. Where possible both directors were to be present at the regular, three weekly, district meetings.

The directors visited the teachers on site every three weeks. To begin with, the visits would focus only upon the lead teacher's class. Later, and on request, the directors would visit other classrooms to follow up work being done with the teachers by the lead teacher.

Seminars were designed to meet two purposes. First, they presented material in cooperative learning, strategies for effective teaching and learning and issues of classroom management. These were nominated first by the directors but also by the teachers in reflective exercises aimed at identifying emergent needs. The second purpose was to enskill the teachers in what was called collegial collaborative consultation based on peer coaching (Costa & Garmston, 1994).

Particular care was taken to ensure the role of the lead teacher was clear. In particular, the role as a consultant included the need to gain consent from colleagues to visit classrooms, to work only in ways that were negotiated in advance and to retain confidentiality within the dyad. The following diagrammatic illustration clarifies this point. It represents a new role for both the lead teacher and the class teacher.

FIGURE 2. DEVELOPING THE NEW TEACHING ROLE



The diagram encapsulates a number of seminar topics each contributing to the general understanding of the role. The master sheet developed for observation training includes a distillation of the topics and is reproduced overleaf.

To support the lead teachers in developing their consulting skills, a series of workshop simulations was developed with pre and post conferencing guidelines and checklists.

FIGURE 3. COLLABORATIVE COLLEGIAL CONSULTATION PRE-LESSON CONFERENCING GUIDELINE

**CCC**

**PRE-LESSON CONFERENCING**

This list is designed around the important element of consultation, the pre-lesson conference. Here, the class teacher and a colleague who is consulting with her can consider the lesson plan and what is to be observed.

There are many questions which can be asked during this conferencing time. They should, as far as possible maintain the context of collegial collaboration. In other words, we want to sustain the climate of trust and the confidence that the class teacher is in control, being assisted by a colleague.

The following issues should be addressed . Note that they are not the only ones which you might consider but they are pretty fundamental. Some are more complex than others but we have put them into a logical order for the sake of consistency. You may not deal with them all in a typical first occasion. For the sake of completeness we have listed all the issues.

- Ask about the teaching/learning objectives for the lesson. Check both the academic outcomes and the small group skills that are being targeted.
- Consider how the lesson will be divided so that learning is enhanced. Are the elements we know are important to learning evident in how the lesson is constructed?
- Ask about what the students will be doing during the lesson. What is it expected the students will be thinking about (say, deciding which problem solving method to use or trying to think of ways to paraphrase what has been said). What will the students be doing physically (e.g. writing narrative stories, checking salts in solution)?
- Consider how these activities will be matched by the structures of the lesson (e.g. pairs or fours for brainstorming - then individual, rally table).
- Discuss how the teacher will know if the lesson objectives are being met. This is a monitoring task, remember (using monitoring in its generic sense).
- Consider how the success of the lesson will be judged.
- Finally see how the reflective statement or questions match the objectives and the expected behaviours of the students.

In carrying out this exercise, follow the guide-lines for collaborative consultation as closely as possible. This work is an example of one variation of collaborative collegial consultation known technically as cognitive coaching.

FIGURE 4. COLLABORATIVE COLLEGIAL CONSULTATION PRE-CONFERENCE OBSERVATION CHECK-LIST

# CCC

## PRE-CONFERENCE OBSERVATION CHECK-LIST

### SETTING IS NON THREATENING

- \* Seating
- \* Materials appropriate to the situation (not daunting)

### TO NE IS COLLEGIAL AND FRIENDLY

- \* "Warmth" level is appropriate
- \* Non-verbals are relaxed and encouraging

### OPENING QUESTIONS FOCUS DIRECTION

- \* Purpose is clear
- \* Teacher is given the lead
- \* Open ended to begin with

### TEACHER'S INTENTIONS ARE ESTABLISHED

- \* What she wants to try
- \* How she will go about it

### INTEGRITY OF THE INTENTIONS ESTABLISHED

- \* Proposed actions fit the model
- \* Any departures from the model are justified
- \* Any gaps are identified

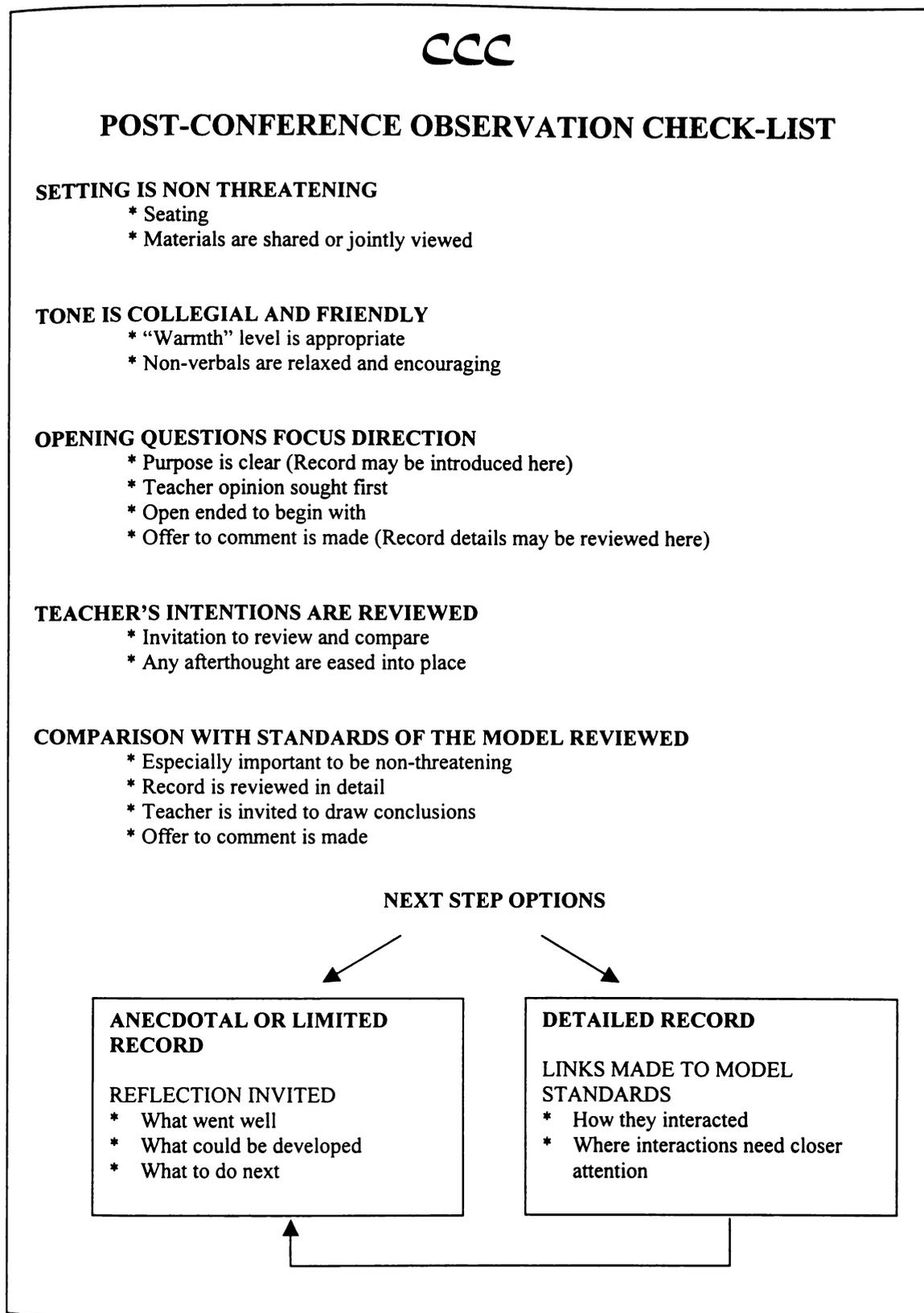
### ROLE OF THE OBSERVER IS CLARIFIED

- \* What will be observed
- \* Method of recording
- \* Level of participation

### OPPORTUNITY FOR DEBRIEFING ESTABLISHED

- \* When and where to meet

FIGURE 5. COLLABORATIVE COLLEGIAL CONSULTATION POST-CONFERENCE OBSERVATION CHECK-LIST



Finally, three observation sheets were developed. The first was a general observation, based upon the master sheet shown in Figure 5. This was set out on three pages instead of one and allowed the lead teacher to write freely in the open boxes. The second was based upon the work of Ysseldyke, Christenson and Thurlow (1988) and the TIES material. This format is not shown here as it was developed further for the RTLB programme and is shown there. The third format, Figure 6, was a double-sided sheet, which allowed the lead teacher to choose an anecdotal record on the second side, or a detailed mix of anecdotal and checking record on the first side. This more detailed format was designed for recording the use by teachers of strategies such as advance organizers, effective questioning, cooperative learning taken from the work of David and Roger Johnson (1984) (PIGSF), information processing modeled on the work of Robert Gagne (1970) (MASTERPF) and thinking skills.

TEACHER	MASTER SHEET (To be used with the 3 sheets observation/summary form)			
WEEK NUMBER/DATE	LESSON PLAN	ADVANCE ORGANISER	GROUP STRUCTURES	PIGSF <small>(Diane Brown, from Johnson &amp; Johnson)</small>
COMMENT	Degree of detail Clarity of objectives Fit of structures to objectives What search for understanding	Use of appropriate items Method of use	Nominate Match to objectives Match to task	Use of characteristics Methods of use Comments on use

ENVIRONMENT	MANAGEMENT MODEL	FACTORS OF EFFECTIVE TEACHING <small>(Ysseldyke, et al)</small>	COMPONENTS OF LEARNING <small>(Gagne)</small>	OTHER STRATEGIES
Comment on appropriate features, e.g.: Work displays Inclusion Safe environment	Locus of responsibility Group use internal management Locus of quality control	Comment upon any of the factors where they are apparent	Comment upon any of the components where they are apparent	Appropriate to task Appropriate to objectives

4Fs (Johnson & Johnson)	THINKING SKILLS	TEACHING CONCEPTS	USE OF GRAPHIC ORGANISERS & SUPPORT FRAMES	QUESTIONING
Students operating at each phase: Nominate & Comment	Modelled Made explicit Cognitive awareness Metacognitive awareness	Concepts: Noted Taught Detailed & processed	Use appropriate to objectives & structures: Nominate & Comment	Appropriate to task Range of levels Wait time Positive focus

FIGURE 7. COLLABORATIVE COLLEGIAL CONSULTATION OBSERVATION FORM

<div style="font-size: 1.5em; font-weight: bold; margin-bottom: 5px;">CCC</div> <div style="font-size: 1.2em; font-weight: bold;">OBSERVATION FORM</div>				
CLASS	DATE	TIME	(See other side for notes)	
<b>FOCUS OF OBSERVATION</b>			<b>QUESTIONING RECORD</b>	
<b>ADVANCE ORGANIZER IN USE</b>		<b>COMMENTS</b>		
Announce	<input type="checkbox"/> Topic	<input type="checkbox"/> Sub-topic		<input type="checkbox"/>
Link	<input type="checkbox"/> Rationale	<input type="checkbox"/> Concept		<input type="checkbox"/>
Vocabulary	<input type="checkbox"/> Organization	<input type="checkbox"/> Outcomes		<input type="checkbox"/>
<b>COMMENT ON P I G S F</b>				
<b>COMMENT ON M A S T E R P F</b>				
<b>COMMENT ON THINKING SKILLS</b>				
How were thinking skills made explicit?				
How were students helped to organize their thinking?				
Other comments				

Continue on other side

QUESTIONING CODE    Q= question asked    W=wait time used    QN= name after question  
NQ= name before question    H= responded to a hand-up    C= responded to a call-out  
†= female responded    ↑= male responded  
ℵ to ⊕= question pitched at one of Bloom's six levels (nominated by the number) ⊙= couldn't code  
Example: Q W H † ℵ - This sequence could have gone: N Q ↑ ⊙

FIGURE 7. CONTINUED

<b>CCC</b>	
<b>GENERAL OBSERVATIONS</b>	
	<b>QUESTIONING RECORD</b>
<p>Consider such things as 4Fs, effective use of time, feedback patterns, encouragement of responsible behaviour, explanation of concepts, student-student/teacher-student interactions, student understanding of instructions, emphasis upon quality of the work, etc.</p>	

**Site visits**

Site visits were organized so that the lead teacher and presenter had equal control of the process. There was a “bottom up” element with lead teachers deciding when support in their own classrooms would occur and what kinds of support they wanted in order to gain confidence as mentors. Equally, there was a “top down” element as the feedback sessions from the directors became increasingly fine grained.

As teachers transferred their experience in using the strategic cooperative learning strategies to their colleagues, the directors supported the work with “made to measure” materials requested by the lead teachers, observations in other classrooms on request and joint briefing and debriefing sessions.

During each site visit, the directors met with the principal or deputy principal of the school. At these meetings, any concerns about the programme could be raised, support for the lead teachers and their endeavours could be reaffirmed and plans made for staff or district activities that might arise from the programme.

**Networking**

Following each three-week cycle in a district, the lead teachers in that district met with one or both directors for one to two hours. In these meetings, the lead teachers exchanged experiences, sought advice and reassurance from each other and the directors, and reported progress. This was also an opportunity to engage the interest of other staff in the schools and to organize visits to each other’s school.

Lieberman and McLaughlin (1992) strongly advocate for networking as a strategy to improve professional development. Among the common features they define as consistent with professional networking the authors include the creation of a community of critical friends (a concept taken up in the RTLB training). In this case, the creation of district meetings with the opportunity for the lead teachers to work with each other in each other’s schools and to support each other was a priority.

### **Reflective reviews**

At the end of each term, a review was conducted to check progress. A major review was undertaken two thirds of the way through the programme during a grid analysis undertaken by all the lead teachers in a seminar exercise. Following upon this analysis, plans were made to establish support activities for the remainder of the year.

Details of this analysis are in the results section of this chapter.

### **SOURCES OF DATA**

#### **Questionnaires to teachers**

A questionnaire was mailed to all lead teachers prior to the final seminar, to be returned to an independent reviewer. The responses were used both as a means of evaluating the usefulness of the programme and to ensure any issues raised could be dealt with in the final seminar sessions. These responses were used for the grid evaluation. A further questionnaire was mailed to teachers in December seeking their views on a range of issues surrounding the programme. Some of the questions were adapted from the suggestions made by the teachers themselves in their reflective discussions noted below.

#### **Questionnaires to principals**

During the final seminar the lead teachers were invited to develop a set of questions that might be asked of the principals of their schools. The intention here was to gain some perspective of the authentic issues of which the teachers may be aware, but of which the directors may not. These were mailed to the principals in December and analyzed by an independent reviewer.

#### **Grid analysis**

At the beginning of the programme and before the last seminar, the lead teachers were asked to complete a grid analysis of their progress. The headings for the grid completed in December of the year before the programme began were (a) things that worked well in the previous training, (b) three day targets for the seminar days, and (c) areas in need of revision. For the September seminars, the teachers

were asked to nominate (a) areas of success to date, (b) ideas still being developed, (c) areas of uncertainty, and (d) issues still to be dealt with. Following analysis of the final grid, a list of actions to be taken was drawn up with each lead teacher.

### **Satisfaction evaluations**

Teachers were asked to complete individual responses to four questions before the final two days of seminars. A colleague was asked to collect and scrutinize written responses in order to ensure teachers had an opportunity to respond to a neutral observer who was not associated with the programme. The lead teachers were asked to complete this evaluation of the value of the course to themselves as teachers, as potential consultants and to comment on the quality of support they had received during the programme. These questions were considered important, as they related to the level of modeling of appropriate consultant behaviours that the directors had offered.

### **Focus groups**

In the last seminar, the teachers were asked to work in two groups to gain further views of the lead teachers' perceptions of the programme and to provide a guideline for the directors in their evaluation of the programme.

## **RESULTS**

Independent reviewers analyzed all returns from the data sources. Note that the summaries below are taken directly from the independent reviewer who often reported in the words of the respondents. Only the names of the two directors have been replaced with the term "Directors."

### **Teacher questionnaires: Summary of results**

- Question 1: What have been the i) positive aspects; ii) problems/difficulties?
- Question 2: What aspects of the programme were most useful?
- Question 3: What aspects of the programme were least useful?
- Question 4: As a result of this programme, what degree of change has occurred for i) you; ii) your team; iii) your school?
- Question 5: How have you benefited from this programme? Professionally/personally.
- Question 6: How would you like to see this programme continuing (realistically)? How do you expect it will continue?

- Question 7: Can this approach to teaching be incorporated into the philosophy of the school? If so, in what way?
- Question 8: How have you been supported by the school? What further support/training do you believe you needed from Don and Lottie; your school?
- Question 9: What are the things you value most from the programme?
- Question 10: How do you view this programme's connection with the new curricula?
- Question 11: Are there any ways this course could be improved if we were to run it again?
- Question 12: How do you rate the success of the programme generally?
- Question 13: Were there any particular issues that affected the programme in your school?
- Question 14: Do you have any other comments to make?

The major issues to emerge from these questions were:

- a strong sense of self efficacy with comments such as “new lease of life” “feel more effective” and the frequent use of terms like “confidence” and “self confidence”;
- the importance of the support from the Directors, including frequent responses to Question 2 (most useful aspects), Question 5 (benefits), and Question 9 (value from the programme);
- a major impact on their own teaching and student learning, including improved use of strategies, more effective classroom management and, frequently, the value and their use of cooperative learning;
- the close connection between the strategies they could apply in their own classrooms, and those they could assist colleagues to apply, with the New Zealand Curriculum Framework. Frequent comments such as “integral”, “tailor made”, “a perfect match” and “crucial”;
- a recognition that the programme had increased their participation with senior colleagues, other classroom teachers and across their schools through visits and joint presentations to staff;
- a qualified and somewhat cautious view of their growing skills as consultants to their colleagues;
- a concern about the resources available for the continuations of the programme without the input of the Directors; and
- a judgement that the programme had been successful. Eleven of the 17 who responded to this question rated the programme “highly successful” and six said “successful”. Interestingly, three teachers rated the programme highly successful for themselves but only successful for their school.

### **Principals' questionnaires: Summary of results**

- Question 1: What have been the i) positive aspects; ii) problems/difficulties?
- Question 2: The things you value most about this programme/
- Question 3: What has been done to support the programme teacher in the school?
- Question 4: Feedback from the people involved in the programme.
- Question 5: What resources and emphasis will this programme have next year and in the future? What is the school's commitment?
- Question 6: Can this approach/strategies of teaching be incorporated in the philosophy of the school? If so, in what way?
- Question 7: How do you view this programme's connection with the new curricula?
- Question 8: How do you rate the success of the programme generally?
- Question 9: Other comments.

The major issues to emerge from these questions were:

- the commitment of the staff and the way they were able to work together. Positive and enthusiastic comment on feedback from staff at their schools on the value of the programme;
- the enthusiasm of the staff, their improved confidence and the emphasis placed upon student learning;
- all agreed that the approach and strategies could be incorporated into the philosophy of the school. Most hoped to continue the programme into the next year, though there were some cautious remarks about the loss of key teachers;
- some concern about the resources required to maintain a lead teacher in the role without the support the programme had brought to the school;
- the value of the Directors with as outside consultants, their support, motivating style and genuine interest in the programme; and
- all viewed the programme as “highly successful” or “successful”.

### **Grid analysis**

Not all teachers completed the grids. In one case, the lead teacher (who also had considerable other responsibilities in the school and outside it) sent a substitute. Two people in the Location One group completed the grid but didn't stay in the programme. The reasons are noted on the grid. For the sake of completeness, their grid responses are included since both had completed prior courses.

Three lecturers at a college of education (who had been trained by the directors) asked to attend the first three seminar days and completed grids. Again for the sake of completeness, their grids are included.

Some teachers didn't complete the questionnaire (for all the usual reasons teachers find it difficult to comply with requests for extra information). Nonetheless, all the entries are included. One teacher didn't complete either measure.

This analysis is presented in two parts. First, the questionnaire from which the grid was compiled is summarized. Then the grid is provided with comparative data from the measure taken in December of the previous year.

## **Questionnaires**

### Areas Where I Have Had Some Success

This list was lengthy including over fifty responses. The general areas which, when categorized into groups, included the use of:

- advance organizers;
- co-operative groups (the Johnson & Johnson generic model);
- co-operative structures (the Kagan structures model);
- the development of thinking skills;
- the use of graphic organizers;
- running team meetings; and
- running seminars.

### Areas Where I Am Still Developing My Ideas

This area was less lengthy and formed something of a bridge between the above area of confidence and the following areas where additional support was requested. It included:

- the development of thinking skills;
- working with colleagues; and

- getting a conceptual grasp on the work.

#### Areas Where I Am Still Unsure

This question highlighted concerns about the teachers' role with their colleagues, working in other people's classrooms and related issues (e.g. how to deal with minor discipline problems that might arise). Some reticence about seeing themselves as models for colleagues was expressed, perhaps as an issue still of developing confidence. A further issue was how to refrain from using an expert model rather than a collaborative one.

Another issue was some elements of methodology that were still not mastered. These included elements of thinking skills and strategies a teacher may not have concentrated upon and needed to revisit (e.g. use of graphic organizers).

#### Areas I Want Dealt With

The responses to this question centred almost entirely upon three issues:

- issues of time management;
- strategies for working with colleagues, sometimes focused upon how to generate in their colleagues the kind of insights the lead teachers had themselves developed (“how do you get the horse to drink?”); and
- fine grain details of a strategic programme (e.g. how to deal with exceptional children).

FIGURE 8. PROGRESS GRIDS – LOCATION ONE

*Record of teachers completing both grids*

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#1	Advanced Organiser Problem Solving works well in co-operative groups. Revision	Ideas and strategies for more effective learning and teaching and the confidence to be able to use them myself and help others to use them. How to apply the theory to the reality. How to chalk and talk less.	How to use a more integrated approach - I only use co-operative learning at junior level for an occasional lesson - I can't balance my available preparation time, the time to teach the concept and the demands of co-operative learning	- Third form co-operative learning - Group of trainees are feeling positive and using new techniques	- Apply strategies for effective teaching to senior classes - What we will do next year - Is it better to give little techniques a go, and try it then later bring in co-op groups or vice versa	- Higher levels of questioning - How to work on the 4Fs	- Possible structures for keeping this programme going - How to convince people that <u>how</u> we teach needs to be addressed (rather than just scheme writing and unit standards)
#2	Advance Organiser - focus to lesson for me and students	Approach for enthusing all staff, preparing programme for next year - how to pass it on - strategic approach. More ideas for me to use within my class. Balance.	Group work - working within acceptable levels -chaos/noise distraction etc. Purposeful	- Using appropriate strategies - i.e. matching content/skill etc to strategy - Session with group	- Getting others to make significant changes/commitment to change their teaching - Not reverting myself to old habits	- Observation of other teachers - sometimes I feel compromised and unsure how to respond	- Question of continuing in 1996 - Issue of time and continued support
#3	Various co-operative group work activities, particularly producing posters on individuals prominent in form 5 history. Use of flash cards (Idea for next year on 7th form essays - read/grade/write/critique/re-write)	Refreshed on various techniques in prior course Understanding of precisely what our role will be back in schools Some thought as to how I would use this ICW ..	Graphic Transformation	- Co-operative group work - Graphic transform - Getting other teachers to attempt some form of co-operative learning	- Getting others to attempt various strategies with some regularity - Advance Organiser	- Need to model for other people - De Bono's hats - developing thinking skills	- Building a team that is using co-operative learning - Getting more teachers to see Don

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#4	Co-operative group work which "ranked" which incident in a novel had most influence on the events as a whole. Each group promoted their incident as most important and reported back - debate by "reporters"		Question skills	<ul style="list-style-type: none"> <li>- Co-operative learning activities</li> <li>- Timed talking</li> <li>- Pair-share</li> <li>- Running a seminar</li> <li>- Getting a group together</li> </ul>	<ul style="list-style-type: none"> <li>- Planning a unit lesson to cover Gagne's points</li> <li>- Using many of the strategies</li> </ul>	<ul style="list-style-type: none"> <li>- An overall plan to take the team through</li> </ul>	<ul style="list-style-type: none"> <li>- How to gently "push" the team into action</li> <li>- Time allocation to be official</li> </ul>
#5	Activating the inactive students when using co-operative groups	Rekindle my enthusiasm for co-operative learning and refresh my ideas so I become confident in all aspects of the course	Using graphic transformations in my particular subject (science)	<ul style="list-style-type: none"> <li>- Advance organisers</li> <li>- Consulting on others lesson plans</li> <li>- Group seminars</li> </ul>	<ul style="list-style-type: none"> <li>- Questioning - higher order. My role with participating staff</li> <li>- Graphic transformations</li> <li>- Reflection questions</li> <li>- Organising lessons to be of a co-operative nature</li> </ul>	<ul style="list-style-type: none"> <li>- Dealing with difficult students - discipline of such students</li> <li>- Individual accountability component - how effective it is</li> </ul>	<ul style="list-style-type: none"> <li>- Developing a more responsible classroom</li> <li>- My role in school</li> </ul>
#6	Advance organiser Group forming methods Accountability methods (i.e 1 person reporting back)	Inspiration Confidence to be able to disseminate the appropriate information How to constructively criticise and evaluate colleagues and myself.	Jobs (who does them and what the jobs entail) Graphic Transformations How to evaluate effectively and efficiently so not superficial	<ul style="list-style-type: none"> <li>- Giving seminars to colleagues</li> <li>- Strategies - Advanced organisers; Think pair share; Grouping and other reporting</li> </ul>	<ul style="list-style-type: none"> <li>- Involving large groups of varying ability in groups</li> <li>- DeBono's thinking hats</li> </ul>	<ul style="list-style-type: none"> <li>- Helping colleagues lesson plans etc</li> <li>- How to be a support when in a colleagues class</li> </ul>	<ul style="list-style-type: none"> <li>- Helping colleagues in class</li> </ul>

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#7	Other methods like graphic transformation Garniers components	Co-operative groupings (incl cohesion exercises) (RAP and think pair share)	Revitalisation! (capture) Strategies for persuading/enthusing others in the school	<ul style="list-style-type: none"> <li>- Classroom - some strategies like groups, think pair-share, mapping</li> <li>- F7 → good atmosphere</li> <li>- Enthusing a group of staff to join programme</li> </ul>	<ul style="list-style-type: none"> <li>- To develop the group and keep the momentum going</li> <li>- To really link co-op/group methods to new curricula - in a tangible way</li> </ul>	<ul style="list-style-type: none"> <li>- Consultation with other staff - how far/fast to "push it"</li> <li>- Want it to become school staff PD area next year - unsure how to manage it</li> </ul>	<ul style="list-style-type: none"> <li>- Time to continue to develop ideas/methods</li> </ul>
#8	Graphic transformations (particularly mind mapping) RAP/MAP	General "pep up". Revision of overall strategies	Blooms Taxonomy. Managing group work in large classes. More strategies for Maths classes	<ul style="list-style-type: none"> <li>- Pupils working in pairs - → building to 4s</li> <li>- Graphic organisers</li> <li>- Advance organisers</li> <li>- Seminars to colleagues</li> </ul>	<ul style="list-style-type: none"> <li>- Aspects of group work (team building)</li> <li>- Applying strategies to certain subject areas</li> <li>- Seminars - in service day</li> </ul>	<ul style="list-style-type: none"> <li>- Visiting classes</li> <li>- Modelling</li> </ul>	<ul style="list-style-type: none"> <li>- Gaining support from colleagues who have been through the course</li> <li>- Time allocation - relief</li> </ul>

*Record of teacher completing second grid only*

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#9				<ul style="list-style-type: none"> <li>- Organising and running seminars with staff</li> <li>- Questioning - think pair share; time talk; group structures; advance organisers</li> <li>- Having 'Is in my classroom</li> </ul>	<ul style="list-style-type: none"> <li>- Consulting working with staff - listening</li> <li>- Thinking skills</li> <li>- Making maximum use of class time</li> </ul>	<ul style="list-style-type: none"> <li>- Graphic organisers</li> <li>- De Bono's hats - how to best use</li> <li>- Teasing out the "real" purpose for a lesson</li> </ul>	<ul style="list-style-type: none"> <li>- Finding time to work with teachers</li> <li>- Taking more personal time to plan "model" lessons for my own classes</li> </ul>

46.

*Record of teachers completing first grid only*

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#10	Think pair share group tasks.. Graphic transformations. Reporting back and personal pupil growth from that self esteem, confidence and understanding	Re-inspired. Revision of strategies. Clear plan of where and how to take co-op learning at HGHS	Some of the other strategies and why they work as people have fiddled with the basics at our school and made adaptations that aren't really good and I need to be clear why that is. I've forgotten lots of the tasks and interesting activities. Revision card activity				

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#11	Jigsaw Strategy and "post-box activity adapted	Confirmation of skills already established. Some new ideas, and skills. A notion that these techniques are succeeding for a lot of teachers and students.	Use of graphic transformations and strategies for dealing with group dynamics, difficulties				

*Record of teachers completing first grid, then left the programme*

Location One	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#12	Learning cards. (Questions one side, answers other side) - done in groups - competitive like Trivial Pursuits	Personally - approach to using co-operative learning with difficult behaviour/slow learners	Group formations/ presentations				
#13	reasonably knowledgeable Advance organisers, pairs working	Refreshing. Motivating. Focus. Confidence from sharing.	Successful implementation				

FIGURE 9. PROGRESS GRIDS – LOCATION TWO

*Record of teachers completing both grids*

Location Two	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#1	Advance Organiser Graphic transformations Evaluation processes (Group) Co-operative group set ups RAP Peer tutoring	Schedule for the year Strategies to use to teach teachers (Process of group work) Evaluation techniques for teachers	Theory/ principles of co-operative learning	- Kagan structures - Concept Frames - Advance Organisers - Thinking skills - Questioning - Team teaching - Workshops - Round Robin - Numbered Heads together	- Running a workshop - The continuation/reflection of observations	- Some aspects of motivation - Knowledge base of Ysseldyke, Gagne	- Time management of programme - Measurement of successful programme
#2	Advanced Organisers Assigning Roles to members of groups, e.g. Manager/ Organiser/ Recorder; Participation Checker; Materials	Plan of action for next year Decisions about staff possibilities at school	Collaborative Consultation - how to get and share the ideas of others so I'm not seen as the "expert"	- Short, effective teaching strategies - think pair share; timed talking, etc - Staff enthusiasm	- Questioning technique (Bloom's) - Co-operative group work 4Ps - Group assessments - Theory based stuff PIGSF	- Collaborative Collegial Consultation. How to help the rest of my group. Is what I'm doing okay?	- Observing others - Constructive criticisms
#3	Peer tutoring techniques - expert model Think pair share - minor way AOs - great Roles within the learning -defined Reporting back - a focus esp if the reporter is randomly selected	A clear plan of what I'm doing, where I'm going as a facilitator - a timetable	Team building strats - once built - you forget what you've done! Skills teaching strategies (social)	- Prof deve - Peer tutoring - Social skills - WEB - "Mind shifts" - change in behaviour strats - Co-op strategies - QLC	- Evaluations - Assessment - Monitoring the programme	- When to push for the next step - How to measure success	- Time - Extra release, more meetings - Money - Professional Development Resources

Location Two	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#4	Sharing of ideas in co-operative groups mid-way through a new unit. Turn taking Active listening Recording Excellent for clarifying students ideas, assessing where they're at and ensuring new vocab is being used appropriately	Plan of attack	Thinking skills	- Modelling for teachers - Co-operative group learning strategies - Social skills - Teacher and peer awareness of ability to incidentally genuinely include SN students - Some graphic transformations - AO	- Advance organisers for team teachers - Use of graphic transformations - Consulting as a non-expert due to time and importance	- Timetabling to monitor and encourage co-operative learning to new teachers	
#5	Co-operative exercises Spider Maps Advance Organiser	Revision on the key elements	PIGSF elements Graphic Transformations	- Regular group meetings - generally positive - Some specific teaching/ learning strategies	- Specific teaching strategies - I need to do more than just my "regular 5" strategies	- My role with my group - facilitator or "expert"	- What approach to take with teachers who are struggling - My observation strategies with my group members
#6	Graphic transformation of text - the strategy that I have used constantly since being introduced. Advanced organisers	Hope to get re-fuelled with enthusiasm, inspiration, knowledge. See the way forward in terms of my role and how to involve my colleagues	Advanced organisers Structuring co-operative learning because this for me is the most time consuming aspect to prepare it has fallen into dispute	- Planning/ delivering seminars - Including higher level thinking skills in classes - Use of advance organisers - Involving other staff in the programme	- Trying to get the big picture, to work out where and how all the effective teaching skills fit together and how to apply them consistently	- My role as consultant beyond delivering seminars. Some members of my group don't ask for much beyond the seminars. I wonder if that is because of the way I have carried out my role.	- The issues above really. How do you get the horse to drink?
#7	Building and Using Groups	To tie in a range of strategies under a common heading Develop a clear idea of consultative collaboration	A whole range of activities I would like an overview of strategies we were introduced to in the Nelson course I would like re-familiarisation with the jargon	- Teaching strategies - Selling colleagues on the rationale - Gaining acceptance by students	- Developing tasks/projects for co-op work over a longer period of time - Using a range of approaches with a rationale- DeBono's hats - How best to be of help to my colleagues, in my role of collaborative consultants	- In co-op group work handling the inter group by play or the one hyper active person in a group.	

Location Two	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#8	Groups of 4 collaborating in discussion, and in video making	A series of activities to teach group skills, that can be used at the beginning of the year and then ways to more students. An to the higher level skills. (so other teachers can see how to do that). A plan for starting work with the group of teachers	Moving groups on to higher level thinking/ group skills - questioning etc by different types of activities Encouraging Probing Analysing	- Co-operative groups - Pairs numbered heads - Advanced organisers - Questioning - Graphic organisers	- DeBono's hats - How best to be of help to my colleagues, in my role of collaborative consultants	- How to strike the balance between being a collaborative colleague and being an officially recognised person with an important function as a consultant. How "official" am I or should I be.	
#9	Using graphic transformations which are able to be understood by all learners because of their intrinsic simplicity	Ways to set up a structure for delivery of the course for the year which sustains the on-going knowledge and enthusiasm and learning for the staff involved	Delivery of ideas to colleagues so that they are the active learners and thinkers and can see ways to adapt strategies to what they are teaching	- Having a cohesive, collaborative class where students support each other	- Formulating the questions which elicit the greatest thought process	- How to best continue to work with other staff to sustain their interest when they have so much else to contend with.	- The concept of a support person. The commitment from a school must be clear. Mine has not once asked what I'm doing or how its going nor shows any interest in the process.
#10	Think pair share then pyramiding. This worked well regardless of how the groups formed	Consolidation of ideas and a clear plan of what is expected in 1995 as well as some ideas on how to go about it	Brainstorming, mind mapping, spider mapping, etc. Advance Organisers	- Group formations - selected/random - Roles - effective use of - Collaborating with staff - Paired tutoring - Brainstorming/ mind mapping reviews	- Noise control - Continued collaboration	- Some of the less used strategies - DEFENDS, RAP etc - can become "forgotten while TAS and others are readily used.	- Some children will not be included. Is it okay to allow them to be on their own?
#11	Jig sawing information in groups so have to co-operate Think/Pair/Share	Confidence that I can act as the facilitator - knowledge of a few things I will be doing - actual specifics	Questioning groups =- focusing them - "What strategy did you use?" "Who is the participation checker, etc.	- Running short sessions to introduce new strategies/ ideas	- Classroom observation - I feel more comfortable now about observing - what to look for, how to write it down etc	- The consultation part - how to best pull answers out of colleagues own heads - I tend to give answers	- Filling in sheets - CCC sheets - a bit scary

Location Two	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#12	-	-	-	<ul style="list-style-type: none"> <li>- Co-operative groups</li> <li>- Advance Organisers</li> <li>- T/P/S/timed talking</li> <li>- School group - resources</li> </ul>	<ul style="list-style-type: none"> <li>- Graphic organisers</li> <li>- Reflecting on learning: metacognition</li> <li>- Learning theory</li> </ul>	<ul style="list-style-type: none"> <li>- Concepts</li> <li>- Thinking skills</li> <li>- CCC processes</li> <li>- "coaching" (learning strategies)</li> </ul>	
#13	Pyramiding Individual → pairing → groups → class	Kick start for next year New strategies for implementing co-op group learning back at school	Revision of less used strategies	- Working co-operatively with my 4th English class has been great. The classroom environment has been much friendlier and focused and I've seen an improvement in students.	- Several teachers have wanted to be involved but feel too busy because of other "trials" in the school. It's been difficult to get a group involved.	- How to help other teachers (who are wanting to be involved in co-operative teaching) in the most effective way with the time constraints and teaching demands.	<ul style="list-style-type: none"> <li>- Observation skills</li> <li>- Giving feedback</li> </ul>

*Record of teachers completing first grid only*

Location Two	December 1994			September 1995			
	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
#14	Think pair share T charts	A refresher Integrated approach to offering the course context	Monitoring of students co-op skill utilisation and development				
#15	AOs Graphic transformations	Overview of contract intentions and participator perceptions	Consult collab				
#16	Think pair share Peer tutoring Advance Organisers	A clearer idea of how to work with classroom Ts in the area without coming across as "preaching". Particularly in the initial stages	Thinking skills. How to ascertain how the students are really going in terms of incorporating the skills and strategies used				

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	Worked Well	3 Day Targets	Revision	Success	Developing Ideas	Unsure	Issues to deal
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## Satisfaction evaluations

Table 1. Satisfaction levels of lead teachers

Item	Mean Ranking Scale 1-5 N=26
Value of the course to you as a classroom teacher	4.55
Value of the course to you as a potential adviser	4.5
Quality of the support you have received	4.75

Table 2. Sample comments taken from questionnaire forms

Excellent, high quality presentations	(Director) models strategies while working with staff on the programme
Concept is brilliant	Staff at my school are keen
Very professional presentations	It's putting theory into practice with guidance and support
Strategies work, pitfalls discussed before hand	Excellent follow-up
Materials (practical & research) are excellent	(Directors) highly skilled, very genuine and thoroughly supportive
(The directors) are marvellous motivators	The one-on-one assistance from (the directors) is fantastic
Absolutely brilliant programme, higher than any other I've been on	Support given always helpful & positive
Most worthwhile thing I have done in my twelve years of teaching	This has been one of the two most useful programmes I have been involved with in thirty years of teaching
Extremely demanding	

## Focus groups

Focus groups are designed to establish the views and opinions of groups of people in a free flowing discussion. Careful notes were kept of the discussions. The Directors began the meetings with a brief invitation to the lead teachers to raise issues they felt were important. These meetings were held on completion of the

programme but before the teachers had completed the questionnaires. The Directors did not offer a list of questions, nor did they lead the discussion. Instead the teachers were simply invited to identify the major issues as they saw them. The sessions lasted approximately one hour. In many respects they were not unlike the network meetings held following site visits. For this reason, the teachers were at ease during the meetings and appeared to speak freely and openly about the programme. The following issues emerged from these meetings:

- gaining a good conceptual picture of the way such a programme works;
- the importance of making strategies programmes tangible and a priority in the school's planning;
- the skills of consulting with colleagues;
- getting a programme started in the following year;
- the need for time to do the coordination necessary to maintain motivation and focus among their colleagues;
- maintaining and, in a few cases, getting more support from the principals; and
- the credibility of the directors and their ability to maintain a constant source of literature, and comment on the literature, for those teachers who wanted to look at some of the issues in more depth.

## **DISCUSSION**

High levels of congruence emerged between principals and teachers on three particular issues. The first is the value of ongoing in-service training delivered in a combination of seminars and site visits. The positive responses with respect to teacher efficacy, focus upon student needs and outcomes, improved teaching patterns, and personal benefit are stated and restated in the responses to questionnaires in particular.

Both the principals and the lead teachers were positive about the opportunity to incorporate the strategies and approaches to teaching into their school philosophy and practices. The lead teachers expressed some concerns about their own

capacity to act as consultants within the school, and the capacity of their colleagues to maintain the changes they had begun. This concern was tempered somewhat by a more confident view of working with a smaller group of colleagues, rather than with a whole school. It seems that the lead teachers could find “like minds” within their school and felt more confident to work with them. One principal remarked “The model I think has its best chance of success in a big school where a large cell can be formed or within a school where it is a whole department exercise.” Four of principals considered that only voluntary participation would be likely to work.

The impact across the schools varied in the reports of principals and lead teachers from significant to, in one case, minimal. The majority however were positive about what had been achieved and what was possible for the future. In some cases, the lead teachers reported having taken staff meetings and seminars with a wide range of colleagues, while others were less sure of themselves in these tasks. It seems likely that the impact within a school was a function of a combination of principal support (usually rated highly) lead teacher skill and confidence, and school culture. It is not possible to tease out these issues entirely but it seems likely that the qualities of the lead teacher played a part in the level to which they were able to recruit colleagues into the programme.

One area of interest is the support given to the lead teachers within their network group. A number of them visited their colleagues’ schools and participated in joint presentations in neighbouring schools on a number of occasions in one district. A considerable camaraderie built up within the network groups but also in the two seminar groups. Indeed the “ownership” of the programme might be judged in part by the comment made in the teacher questionnaire seeking advice on future programmes. In this response the “we” in the question: "Are there any ways this course could be improved if we were to run it again" – was turned around to imply the “we” meant the teachers themselves.

The second issue has to do with resources and the stresses of moving beyond the daily work pattern. Principals and lead teachers alike spoke about time and money constraints (despite the fact the project was funded for seminar release days, staff

development and relief teachers). These teachers were all enthusiasts who had volunteered for the earlier training and for this new role. None-the-less they found the task daunting at times. Many spent hours working on new ways to deliver their curriculum material to meet the strategic cooperative model. Their persistence seems to have been sustained by the frequent site visits and the level of support from the programme directors they reported as helpful. It is clear that the organization of secondary schools is such that consulting with class teacher is never easy. As one lead teacher pointed out “45 minute periods are too short for effective lessons.” Training consultant for the secondary system is clearly a priority for RTLB.

The third has to do with the role of the lead teacher as a consultant. This was the area of greatest difficulty for the lead teachers. Many became very skilled at seminar presentation, staff meetings and in classroom demonstrations. They found it much harder to work with colleagues as consultants on a one-to-one basis. This part of their role received the lowest rating in the evaluations of the value of the course-work (though it was still 88%). The difference between this relatively high rating, and the concerns expressed in response to questionnaires may suggest the training was appropriate but its transfer to active engagement with colleagues was less successful. A further point emerging from the questionnaires and the focus group comments is the concern about the dual role of class teacher and lead teacher. The coordination role of the lead teacher may have been possible during the programme year, given the release time and support available, but may have been problematic without these advantages.

Finally, with respect to the complexity of the role of lead teacher, examination of the “issues to deal” and “actions taken” in the grid analysis, to support lead teachers is revealing. A number of these actions were intended to support the lead teacher in gaining further, or maintaining, contacts with colleagues. In some cases this included district wide actions. This level of support was needed even when the lead teacher was obviously highly competent.

This last finding raises some important questions about the capacity of an internal consultant. Despite the obvious value placed on the role by the principals and the

recognition by the lead teachers themselves of their improving skills and competencies, the task may have been just too hard. This then raises the issue of whether it is appropriate to pursue a policy of support from within a school, or whether to opt for an external consultant with a coordinator as demonstrated in the Two Schools project. This point will be considered later in the thesis.

## CONCLUSION

A comment to emerge from the focus groups, and one supported in many of the comments in the questionnaires, is the conceptual understanding the lead teachers achieved in the programme. It is likely that this is a critical factor in the lead teachers' understanding of their role as consultants, no matter their concerns about how to carry it out. They appeared to understand the purpose and importance of reforming teaching practice to meet the demands of the new curricula and the growing diversity of students in our schools. If consultants are to be successful in playing their part in bringing about reform of the teaching-learning process, this may be the most important lesson to emerge from this project. Certainly it played a major part in planning the RTLB programme.

One of the most frequent comments from principals and lead teachers was a wish for the programme to continue into the following year. This alone seems to confirm that the programme was successful. Data from questionnaires, focus group discussions, and even the grid analysis showed principals and teachers looking ahead to the next year's programme.

## **CHAPTER FIVE:**

### **DEVELOPING AND IMPLEMENTING A PRE-SERVICE SECONDARY SCHOOLS INITIATIVE**

For reform of education to succeed, teachers must be willing and able to change their classroom practices (Darling-Hammond & Ball, 1999). Not only must practising teachers make this adjustment, teachers in training must be prepared in new and different ways in order to meet the challenges of such reforms as SE2000. There appears to be universal agreement that pre-service teacher education is one of the keys to improving schools and teaching (Fullan & Mascal, 2000). Internationally, teacher education has come under scrutiny for a variety of reasons, including, in many English speaking countries at least, politically motivated efforts to de-professionalise teaching (Hargreaves, cited in Fullan & Mascal, 2000; Scott & Freeman-Moir, 2000). At a time when teacher education is being reviewed (e.g. Elliott, 1993) there is a need for careful reflection upon what preparation beginning teachers require, if any. In his introduction to that year's Teacher Educator's Handbook, Murray (1996) examined the question, "Is teaching a naturally occurring skill?" Murray questions teacher education much in the same manner as Cuban (1993) examined teaching itself, i.e. whether it is centred upon the needs of students or systems. Murray completes his analysis by questioning the qualities of the profession. This section addresses the issue of what should constitute teacher preparation.

At the same time that teacher education is being questioned there is a growing and universal demand for more thoughtful learning in our schools (Costa, 1991b; Gardner, 1991) and a requirement that secondary schools accept all students, including those with special needs. This is occurring at a time of stressful review and reform of teaching, schools and education itself. Secondary teachers are now faced with a more demanding curriculum framework, a more diverse school population and conflicting demands for "thinking classrooms" which still meet the

requirements of "knowledge standards." This latter conflict nicely reflects the uncertainty of what is required of teachers as we enter the new century. The oxymoron of teaching students to be flexible, creative and innovative within the "factory model" of current secondary education should be challenge enough.

The knowledge base of teaching might be divided into a number of parts: subject content knowledge, knowledge of students, knowledge of pedagogy and applied subject knowledge, the craft of teaching and the socio-political issues of education (Wilson, Shulman & Richert, 1987). In synthesizing this analysis, the important ingredient is the integration of pedagogy and subject material in planning and delivery of lessons together with the strategic development of an environment for learning likely to facilitate students' commitment to their learning.

A number of further questions need to be asked. For example, to what extent do trainee teachers develop knowledge of an integrative pedagogy and the skills of application (craft)? How do these compare with the skills of practitioners? There are some international studies that touch on this (Calderhead, 1991; Sternberg & Horvath, 1995; Wilson, Shulman & Richert, 1987) while in New Zealand, we have some information on the extent of teacher knowledge and understanding of pedagogical application before and after professional development programmes (Brown, 1992; Brown & Thomson, 1995a).

The third stepping-stone in the lead up to the RTLB programme, was a pre-service development project. This project provided the chance to test two important conclusions drawn from the previous two projects. The first was the recognition in the literature of pre-service teacher preparation as an element of reform (Hargreaves, 1992; Murray, 1996; Shulman, 1987). If novice teachers are to develop some degree of skill in effective teaching strategies, what does it take to teach those skills? The second conclusion is a corollary of the first – for the skills to be self sustaining, they should be linked to an appreciation of the theoretical literature, be valued at least as highly as the practicum of teaching and involve significant discourse and reflection on the application of theory to practice. A third conclusion makes a case for immersion in a collaborative pre-service programme that is a modest attempt to provide some reality that goes beyond the

safe simulations suggested by Hargreaves in his incisive review of teacher development (Hargreaves, 1993).

The course described in this chapter was established for one year only. A condition for agreeing to establish the programme was that the course would have a strong schools-oriented focus. It would reflect the work done in the previous six years in professional development in New Zealand secondary schools (Brown, 1992; Brown & Thomson, 1993, 1995a, 1995b). A second condition was that the time on the course devoted to the study of pedagogy be greater than that usually allocated to this part of pre-service training (15 to 17 hours per week instead of the usual five hours).

In November/December 1995 a number of schools were visited and their cooperation to work with a cohort of trainee teachers was gained. The schools were those with whom the writer had worked in previous years on professional development programmes. The opportunity was also taken to speak with a number of year one and year two teachers in a range of secondary schools. These teachers were asked to comment on their training and their experiences as they began to teach.

There was an overwhelming response that teacher training had been a “let-down” after studying at university. There was a general view that teaching practice in schools had been more valuable, that the available time at college of education had not been fully used and that there was less cohesion between what they learned (or didn’t learn) at college and what happened in schools. These anecdotal comments are consistent with the literature, including Munro’s New Zealand study (Munro, 1993). More recently, Darling-Hammond and Ball (1999) have confirmed this view: “The effect of teacher education is small when theory is divorced from practice. Although beginning teachers collect ideas, learn about research, and develop some strategies, they have often reported that their professional preparation was of little use or practicality” (p. 18). Howey and Zimpher (1996) suggest there are three salient points in the developmental pattern of teachers:

First, good teaching remains more complex than the understanding many teachers have of it; second, learning to teach is in turn more complex than many of those who would educate teachers perceive it to be; and third, there appear to be cognitive stages or developmental patterns that characterise many prospective teachers and in many instances constrain their learning to teach, let alone their ability to teach others. (p. 482)

In New Zealand and Australia this view has been held, at least in a more naive form, for some time. The Post Primary Teachers Association report, *The Education and Training of Secondary Teachers* (1974) traverses the complexity of teaching and the importance of: "The autonomy of a true professional ...(and)...to help convert the teacher from a mere craftsman to a truly professional leader" (p.1-2). In their report to the Minister of Education, the Australian National Enquiry Into Teacher Education (1980) says this:

Because of our stress on the educational needs of the teacher as a professional person we feel that teacher education should be undertaken in institutions where scholarship and scientific enquiry are held in high regard, where libraries, information services and scientific laboratories are maintained at a high standard and where innovation in the pursuit of knowledge is not merely accepted but strongly supported. (p. 9)

These and similar views are expressed in major reviews of teacher education, for example, the Holmes Group, (1986) and its subsequent debate (e.g. Labaree & Pallas, 1996). A fundamental requirement of an effective preparation, through course work and a matched and co-ordinated teaching practice, is almost universally accepted (Grimmett & Mackinnon, 1993). Stones (1992) implies that for such collaboration to exist, and to avoid the inherent conservatism of schools alone, both pre-service and in-service professional development should match pedagogical and practical knowledge. There are various ways in which those two

forms of knowledge might be matched and progressively developed (e.g. Hargreaves, 1993).

The notion that novice teachers can enter their teaching with a sufficient degree of professional/pedagogical knowledge was tested in this study. One condition for teachers to succeed in their first year of teaching is that they should have a sufficient conceptual understanding of the learning-teaching process to enable them to combine pedagogical knowledge with craft skill. One element of this combination is a "schemata" of understanding. Barnes (1987) has defined such a schemata as: "Complex cognitive structures that include both theoretical and practical knowledge and an understanding of the inter-relatedness of these knowledge sources for informing judgement and action" (p.39). Commenting upon this issue, Livingstone and Borko (1989) suggest that: "If novices' cognitive schema are less elaborate, interconnected and accessible than expert, we can account for several of the differences in their planning, teaching and post lesson reflection" (p. 41).

Newly trained teachers remain novices in the tasks of teaching. Three questions are important to teacher educators:

- what do graduating teachers know about teaching, and how does that compare with what experienced teachers know;
- what is the growth of this knowledge; and
- how is what they know different from what they do?

In deciding what beginning teachers might be expected to know Reynolds (1989) suggests a set of fundamental core principles. Sternberg and Horvath (1995) suggest a "prototype view." These authors review the notion of a kind of cohort of experts who display skills that form a "natural category." Livingstone and Borko (1989) have attempted to explicate differences between experts and novices. All these workers then attempt to apply their findings to pre-service training.

Livingstone and Borko (1989), citing the work of Borko and Shavelson (then unpublished) and Leinhardt and Greeno suggest that:

The cognitive schemata of experts typically are more elaborate, more complex, more interconnected and more easily interconnected than that of novices. Therefore, expert teachers have larger, better integrated stores of facts, principles and experiences to draw on as they engage in planning, interactive teaching, and reflection. (p.37)

The cognitive schemata of teachers are not easily investigated. Livingstone and Borko (1989) however, suggest "schemata for pedagogical content knowledge seem to be virtually non-existent in novices' knowledge systems. Developing these knowledge structures, along with learning pedagogical skills, is the foundation of learning to teach" (p.37).

In this interesting study the authors were able to show that novice teachers planned in the same ways as experts (usually mentally), they set about their lessons in similar ways, but they lacked the skills of flexibility and responsiveness that experts possessed. The authors attribute this difference to a lack of content pedagogical knowledge, "Novices do not have as many potentially appropriate schemata for instructional strategies to draw upon in any given classroom situation as do experts" (p.39).

In the study reported in this thesis, a review was generated of what one group of trainee teachers would know about teaching, as they graduated, and the growth of that knowledge. A preliminary picture was also given of the contrast between this knowledge and that of practising, experienced teachers.

In speaking of the cognitive schematas of novices, Livingstone and Borko (1989) go on to say:

The cognitive analysis of teaching should also guide a research agenda for teacher education. Specifically, researchers should investigate ways of structuring and sequencing preservice experiences to promote maximum cognitive development and

guide prospective teachers toward pedagogical thinking. Concomitantly, they should investigate how to extend the cognitive perspective of teacher education at the in-service level. (p.41)

Feiman-Nemser and Buchmann (1987) suggest that because beginning teachers often lack sufficient pedagogical content knowledge, when under pressure in first year teaching experiences they fall back upon textbook oriented methods, often teaching as they were themselves taught. Calderhead (1991) and Cuban (1993) have documented the long history of this phenomenon. Loughran (1994) describes the culture shock and subsequent adaptations beginning teachers must make as they face the stresses of their first years in the classroom. Wilson, Shulman and Richert (1987) make the point that "in order to foster understanding (they) must themselves understand ways of representing the concept for students....In Dewey's terms they must 'psychologize the subject matter' (p110). Kennedy (1991) makes the same point, noting, however, that level of subject knowledge is not an indication of a novice teacher's ability to transform subject knowledge into understandable teaching presentations.

How teachers come to do this is the stuff of pre-service education, teaching practice and mentoring. The pace of this move to become concerned with "student learning" rather than "trainee/teacher teaching" may be something that can be managed, i.e, how quickly can the teacher change focus from concern for their own needs to concern for the learning needs of their students.

D. Kagan (1992) reports a number of studies which show that teachers pass through stages of growth, from novice to experienced and, sometimes, expert teacher. D. Kagan cites three studies that help us to understand this process. First, Pigge and Marso (cited in D. Kagan, 1992) found that with experience, trainees became less concerned about themselves and more aware of classroom variables. McNeely and Mertz (cited in D. Kagan, 1992) found novice teachers had deteriorating views of their students and an obsession with classroom control. Finally, Hollingsworth (cited in D. Kagan, 1992) noted that classroom management needed to be in place before trainees could move their thinking to

pedagogy, content knowledge, then an integration of management with academic strategies and, finally, a focus on student learning.

If trainee teachers are beginning to move through these steps during their training, it may be possible to track that progression in their responses to questions, through the use of concept maps and other devices, as they move their focus during study and teaching practice.

Munro (1993) cites New Zealand data on how trainees value their pre-service education in college and schools. Munro used a case study approach following six trainees through their college training and into schools. He reports:

During training, all but one trainee appeared to regard the status and credibility of schools as greater than that of the college and, by the time of the follow up interviews, the dissenting trainee, too, had joined that consensus....Trainees appeared to approve their work in the schools as 'practical' and 'real' and to denigrate that in the college as 'theoretical' and remote from reality. (p. 434) (and)

For all trainees, however there was an overriding tendency to uncritically categorize and reject many in-college inputs as 'theoretical'. At the same time, there were few indicators that trainees had any clear idea of what they meant by the term. (pp. 438-439)

This is rather much a double-edged sword. Munro is concerned about the views of trainees but the solution may well have lain in the hands of the college staff! The evidence is that trainees view what happens in college as less than useful and what happens in schools as the real training. O'Brien (personal communication 2/12/96) sums up the situation as consistently showing a trainee's belief that the real learning is done in the schools. To understand this situation one must consider the nature of teacher education programmes. D. Kagan (1992) supports the implication behind Munro's views reported above, with the following comment, citing work by Eisebhart, Behm and Romagnano, "Candidates were presented

with confusing, sometimes contradictory, messages about the nature of teaching and learning. Moreover, the eight candidates found the content of the courses too theoretical to be applicable to the classroom" (p.144).

In the study now being reported, the pedagogical/professional studies programme was founded upon two elements, (a) research and theoretical foundations which had clear support in the literature, and (b) evidence from five years of professional development programmes, in schools, with some hundreds of teachers, that the foundations *did* apply in New Zealand classrooms (Brown, 1992; Brown & Thomson, 1995b). The intention was to establish a programme that had credibility for trainees and for schools working in partnership with the college.

## **BACKGROUND**

The general programme for secondary training at the college of education consisted of three parts: the study of pedagogy (professional studies), curriculum (curriculum studies) and teaching practice. While there were some clear links between the first two parts and teaching practice, there were also elements of disconnection. In particular, the links between teaching practice and pedagogy/curriculum were weak.

This dislocation was not intended. Two influences were present. The first was an historical lack of any strong liaison between the college and the practice schools cooperating with it. Since the college had no system for effective liaison, trainees were largely in the hands of school leaders and staff who had little or no formal linkage to the college programme and little immediate stake in the outcome of training. The second influence was the lack of continuity between pedagogical training and classroom practice.

Schools that had agreed to cooperate in the project reported here, had a clearer understanding of the pedagogical component of the programme. Associate teachers in these schools had taken similar courses of professional development with the author. The basis for the course at the college was the lessons gained during five years when some hundreds of teachers participated in professional

development programmes (some of which are reported in the Two Schools study and the Teaching for Effective Learning project. Other schools which were recruited through the college to make up the necessary numbers however, and their associates, had seen little or nothing of the courses, were naive to the programme and had to rely upon written descriptions in trying to make sense of any role they might play in demonstrating the model. For some, there was neither familiarity with the programme nor commitment to it.

In the former case, trainees saw associate teachers modeling a familiar style of teaching. Trainees would recognize student centred and strategic classroom practices from their experience in college seminars and from their reading. These classrooms were in direct contrast to teacher centred ones. In the latter case, trainees would report a range of experiences from positive to negative, but always that the teaching styles they saw were more a reflection of teacher centred, teacher dominated styles. Since an objective of the course was to have trainees appraise carefully, alternatives to the standard “lecture/question/assign/copy” approach to teaching, it is hardly helpful if they are observing a continual diet of such teaching methods. If there is one style of teaching in which trainees need little or no further experience it is this one. Hence, all their classroom experiences would be in stark contrast to their college experiences.

This latter situation is clearly not unusual. D. Kagan (1992) cites a number of studies that “confirm the absence of a coherent knowledge base underlying classroom practica and the lack of connection with university course work” (p. 150). This is a matter of considerable concern since there is evidence that most teaching is “atheoretical” (Calderhead, 1991). In other words, trainees are not exposed to a consistent rationale for what occurs in the classroom. Instead, where such issues are discussed at all, they are justifications for actions rather than explanations based upon some kind of credible knowledge base (D. Kagan, 1992).

The teacher education course was established with a number of projected outcomes:

- demonstrate a comprehensive understanding of the learning-teaching process;

- demonstrate understanding of the purposes of a range of methods for promoting learning and select and use those methods which are most appropriate in a given class;
- demonstrate a range of professional responsibilities toward students, parents and colleagues;
- act upon those aspects of classroom and curriculum research which are most useful in ensuring effective and equitable classroom practice;
- demonstrate personal professional reflection and the ability to respond positively to critical evaluation by associates, lecturers and peers;
- show evidence of a developing philosophy of pedagogy and their teaching subjects; and
- demonstrate competence using the range of assessment techniques used in New Zealand secondary schools and selection of appropriate assessment techniques for their purpose.

How much education is necessary to achieve such outcomes, or at least to approach them? D Kagan (1992) notes that pedagogy courses are of relatively short duration or, of longer duration but with few hours of semester time. The course was somewhat different from the usual format adopted in the college. Trainees were involved in professional studies for a minimum of fifteen hours per week of face-to-face time to a maximum of seventeen hours. This is more than three times the usual. The available time was also used in a somewhat different manner than was usual. Trainees were embedded in a culture of effective teaching and learning. This “immersion” approach meant that each and every day, trainees had modeled for them, or modeled to their peers, the warp and weft of inclusion, cooperation, use of group structures, cognitive strategies and the like. This immersion in a strategic model was purposely established as likely to be the most effective way of building a pattern of behaviour which “broke the mould” of traditional teaching. It was considered possible that this method would be most likely to accelerate trainees through the three stages of novice practice described by Doyle and cited in D. Kagan (1992). These stages are rote knowledge of classroom strategy, routine knowledge and comprehensive knowledge. Put more prosaically, these stages might be described as “can talk but not walk the talk”,

“can talk and walk but only with effort” and “can talk and walk readily, applying across contexts.”

There are good reasons for such an approach. Gardner (1991) speaks of young students having "initial conceptions, stereotypes, and 'scripts' that students bring to the school learning (and the difficulty of) refashioning them or eradicating them" (p.5). To paraphrase Gardner, in every developing teacher trainee there is a thoroughly socialized potential traditionalist struggling to replicate their years of secondary experience. Cuban (1993) has made abundantly clear how difficult it is to make changes toward student centred schooling, and Calderhead (1991) speaks of the highly influential effect of long prior experience as recipients of teacher behaviours. As D Kagan (1992) points out “Despite course work and field experiences [in significant studies of pre-existing beliefs and images of trainees] the candidates’ beliefs about teaching and themselves as teachers remained unchanged throughout the semester” (p.140).

It is clear that if teacher educators are to make an impact on teacher trainees, they must take the changes to the trainees in ways that will influence them in the short term and sustain their efforts to think and re-think their practice in the longer term (for a discussion of some of the issues involved in the conceptualization of pre-service training see Barnes, 1987). It is difficult to get evidence of this transition but one anecdote may help the reader to understand the process. On the last day of seminars and workshops, the trainees were invited to devise some way of illustrating their understanding of the professional studies course as a whole. In four teams they each devised a dramatic presentation to represent what they had learned.

One group set up a “staged” classroom. The scene began with a group of unmotivated students lolling in their seats while a very traditional teacher talked at them from the front of the room. The narrator for the team explained that this was their prior understanding of secondary teaching. The action moved on under the narrator's direction to a lecturer entering the room. As he (actually she, wearing a tie to represent the author) began to speak, the traditional teacher faded slowly from the scene. The trainees left their seats to move like sleepwalkers round the

room. The audience was informed that a transition was occurring. The trainees were learning that teaching was different from their pre-conceptions and they were finding new meanings for the word "teacher". Finally, the trainees formed into groups, began animated debate and began reporting results and conclusions to their peers. The transition was complete; the strategic model was in place.

## **METHOD**

The approach used in developing and delivering this teacher education programme was formative. Consequently, the methodology was driven to some extent by the developing outcomes of the course work and trainee requirements.

### **Procedures**

The course was conducted over one school year with time divided approximately equally between college course-work and school practicum. During their time in college, trainees divided their time between curriculum studies of two subjects (approximately 10 hours per week in total) and pedagogy (between 15 and 17 hours per week). Seminars during the pedagogy time were conducted in a dedicated room that was set up as a "home room" with displays of work, workstations and materials readily available for simulated classroom activities.

The fundamental teaching procedure was based on cooperative learning following the model of Johnson, Johnson and Holubec (1993) and Johnson, Johnson and Smith (1991). This method balances lectures with small group activities to encode and critique information. It creates a shared experience between lecturer and trainees. It builds cohesion and a sense of shared purpose among the trainees who are not placed in competition with one another and it places responsibility for learning upon the learner. Finally, it allows trainees to experience at first hand the methodology that is being advocated in their training. The usual assignment and project work expected at tertiary level was also set.

### **Sources Of Data**

Data were gathered to throw further light on what is required to prepare teachers for a reformed education system, particularly one which is inclusive of all

students, democratic and highly professionalised. While the measures taken were all designed to be formative both for the lecturer and the trainees, they were also intended to show:

1. an indication of growing understanding by the trainees of pedagogical principles;
2. a comparison with similar data collected from experienced teachers; and
3. some indication of the value of college programmes compared with those of teaching practice.

### **Progress Reviews**

On two occasions, trainees were asked to review their progress formally. The outcomes for the course were set out in the course description, which had been approved by the academic committee of the college, and distributed to the trainees. Using this document, trainees were asked to rate their progress on a series of dimensions using a 1-5 scale.

On the first occasion, when half the course was completed, trainees were asked to offer a measure of what had been achieved given only half the course had been completed and that there was still time to learn more about each outcome. The ratings for this occasion were described as “mid-point” to signify they represented a level of progress relative to the period of time in which they had been in training. This score was used to act as a benchmark against the end of year, final or “end-point” score. Scores on the "outcomes ratings" were summed for all respondents, then averaged and converted to percentages. It was anticipated that the final scores would show further progress toward the achievement of the course objectives.

### **Concept Maps**

Concept maps have been shown to be a valuable aid in investigating the development of two elements of knowledge and thinking - progression of understanding and the degree of understanding of inter-relationship within and between concepts (Novak & Gowin, 1984) and in tracing conceptual change among teachers trainees (Morine-Dersheimer, et al, 1992).

There are two levels at which changes in thinking, knowledge and the organization of pedagogical concepts can be evaluated. The first is a subjective analysis, looking to see how students have grasped the concept or to see how much maps have altered, demonstrating some evidence of greater depth of understanding and breadth of knowledge.

The second form of evaluation utilizes a coding and scoring device. This follows the work of Novak and Gowin (1984). A hierarchy of concepts was the first set of measures used. Here, each level of concepts was checked for its generality. As increasing levels were identified, each became more specific as it was separated from the central concept. In addition, each level and a concept within the level, was required to be pedagogically valid and linked logically to the previous level, or a concept at that level.

Following an analysis of hierarchy, the maps were evaluated for two kinds of linkages of concepts. The first linkage was the propositional statements that linked concepts within a hierarchical order. The second kind was those which linked concepts across the hierarchy, or links from one concept to another at different levels, but which were not simple, logical links, i.e. they showed an interrelationship which indicated complex use of the concepts.

Following Novak and Gowin (1984) a weighting was given to each element of the evaluation and standards were set for the various elements of the evaluation procedure. An independent evaluator who was knowledgeable of the strategic approach to teaching and who had available independent advice where necessary rated each map. Inter-rater reliability was established at better than the 85% level (calculated by multiplying the agreements over agreements and disagreements by 100).

As one measure of the development of pedagogical understanding, concept maps were obtained on three occasions. The first observation was completed after the trainees had sufficient opportunity for observation to produce meaningful maps, yet early enough in their training to ensure some degree of naiveté. The maps were completed after the first week (17 hours of seminar work). The central

concept was nominated as "effective teaching and learning". Two further maps were obtained, one at the half year and a final map in the last few days of the course. In this report, only the first and final maps are scored.

All the trainees took part in one other mapping exercise. This map was completed after eight months of course work. Groups were asked to complete a concept map at the end of a one-day workshop on motivation. The central concept was nominated as "motivation". The trainees could choose to structure up a map using their own second level concepts, or to choose some or all of five concepts that were major themes of the workshop. These were: (a) relationships and a safe, supportive environment; (b) stimulation of interest and active involvement; (c) "reward" structures; (d) nature of the tasks; and (e) student perceptions and experiences of tasks.

Trainees were asked to complete these maps for three reasons:

- to encode what they may have learned from a very complex and demanding workshop;
- to gain further experience in the use of concept maps in an authentic task; and
- to scaffold ways of using concept mapping using small teams.

### **Questionnaires**

Questionnaires were developed to track the growing awareness and beliefs of trainees on some of the major issues identified as important in pre-service secondary teacher education (Barnes, 1989; Hargreaves, 1993; Hargreaves & Fullan, 1992; D. Kagan, 1992; Munro, 1993). The questionnaires tapped socio-political issues, attitudes toward teaching and learners and, in the post course questionnaires, questions on pedagogical principles and a measure of strategies and structures used by the trainees in their own teaching.

The questionnaires were based upon those used in the earlier Two Schools Project (Brown, 1992) and explained in Chapter Seven of this thesis, and subsequent professional development programmes in schools. Since the major purpose of the questioning was to gather formative data which could be used to develop the

programme further, not all the questions were the same as those asked of the teachers. In some cases however, they were identical. An independent evaluator using protocols developed for the earlier study carried out the analysis. The evaluator was knowledgeable about the programme and the theoretical issues and principles therein. The evaluator and the author independently assessed the questionnaires. A third evaluator was available to act as a referee but was not required. Inter-rater reliability was established at the 90% level (calculated by multiplying the agreements over agreements and disagreements by 100).

### **Grid Analysis**

After terms three and four (10 weeks per term) trainees were asked to complete a grid indicating those elements of their training where they thought they were doing well, those where they thought they were less confident but were "fine tuning", and those where they thought a good deal more attention was required.

Trainees were free to list any issue, though they tended to list only a few. This method had proved particularly useful in the professional development programmes used earlier (Brown & Thomson, 1995b). By allowing the trainees to nominate their own categories, a measure of progress independent of the self-ratings of achievement of course outcomes was obtained. This also allowed the trainees to identify authentic issues of teaching from their own perspective.

An independent evaluator and the author evaluated grids. All grids were analysed by each evaluator using a standard protocol. Without further discussion, agreement was reached at the 95% level (calculated by identifying the number of agreements on the categories an item represented over the number of agreements and disagreements multiplied by 100). This was considered sufficient. However, disagreements were considered and agreement reached on all items.

### **Use of teaching Strategies**

It was not possible to gain a comprehensive analysis of all the strategies used by the trainees. However, two reports were gathered, one a list of the strategies observed or reported by trainees while on section in schools. The other was during observations of lessons presented while on teaching sections. Each trainee was visited, with only a few exceptions owing to exceptional circumstances, at each of

their four practicum sites. A check was made to ensure the trainees engaged in cooperative learning activities during that site visit.

### **Ratings of School and College Experience**

Data were collected on three occasions from trainees on the value of college courses and on two occasions of their school experiences. Trainees were asked to rate the various courses on a 1-5 scale on two variables (a) how relevant the course was to their training for classroom teaching and their professional development, and (b) how well the programme was presented (including how well it modeled the strategic nature of the programme).

For school sections, trainees were asked to rate six variables, relating to helpfulness and friendliness of the schools toward them, support, feedback and quality of assistance with professional development. Only the ratings for the course on pedagogy are included in any reports of this kind.

## **RESULTS**

### **Self Ratings of progress**

Table Three shows the self ratings of trainees on the course outcomes at the mid point and at the end of their training.

Table 3. Ratings by percentage of trainee confidence in meeting course outcomes

Objective	Confidence Half year N=22	Confidence Full year N=19
Demonstrate a comprehensive understanding of the learning-teaching process	71	92
Demonstrate understanding of the purposes of a range of methods for promoting learning and select and use those methods which are most appropriate in a given class	73	87
Demonstrate a range of professional responsibilities toward students, parents and colleagues	75	88
Act upon those aspects of classroom and curriculum research which are most useful in ensuring effective and equitable classroom practice	72	90
Demonstrate personal professional reflection and the ability to respond positively to critical evaluation by associates and lecturers	83	90
Show evidence of a developing philosophy of pedagogy and their teaching subjects	69	90
Demonstrate competence using the range of assessment techniques used in New Zealand secondary schools and selection of appropriate assessment techniques for their purpose	53	76
<b>Additional objectives</b>		
Plan, organize and manage teaching, using effective teaching methods, assessing students and evaluating student progress	64	81
Manage the classroom, motivate students and deal with individual student needs, interests and problems	73	89
Develop teaching resources and understand the school system	65	84
Work with parents, colleagues and the community of the school	65	79
Recognize and act upon equity issues	80	86

Table Four shows the comparative ratings trainees gave for their progress toward meeting the course outcomes based on relative progress at the mid-point and a final judgement of their progress (end-point), at the end of year.

Table 4. Analysis of trainee ratings, expressed as percentages, meeting course outcomes at the mid and end point of their training.

End Point	Mid Point	Objective
92	82	L-T Process
87	85	Prom Learn
88	84	Professional
90	80	Research
90	85	Reflection
90	78	Philosophy
76	64	Assessment
81	74	Methods
89	79	Managing
84	74	Systems
79	72	With Others
86	86	Equity

### Concept Maps

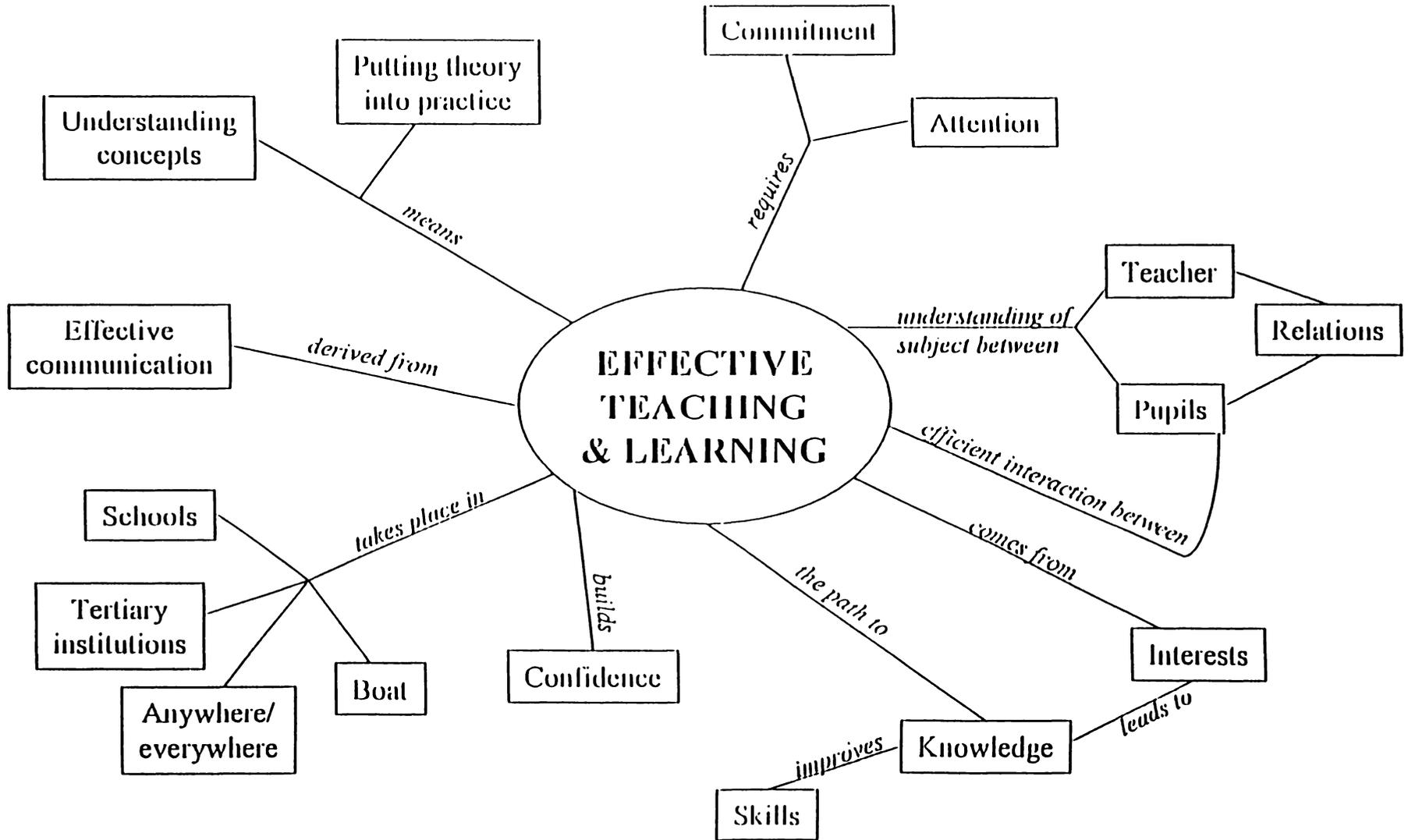
Table Five sets out the results of scoring the concept maps of “Effective Teaching” showing the first and final measures and the increase in scores. The maps were analyzed using raw scores of general conceptual understanding, and the links or inter-relation of important concepts.

Table 5. Analysis of concept map scores: Pre-service secondary trainees

<b>Evaluation</b>	<b>First Training Measure</b>	<b>Second Training Measure</b>	<b>Mean Raw Score Increase</b>	<b>Mean % Increase</b>
<b>Mean Total Raw Score</b>	53	169	116	219%
<b>Mean Cross Link Score</b>	7	47	40	571%

Three concept maps have been chosen to illustrate the gains made. Three further maps using the concept “Motivation” are shown to illustrate both the growing conceptual understanding of the trainees and their sophisticated use of the procedure.

FIGURE 10. MEASURES OF PROGRESS 1





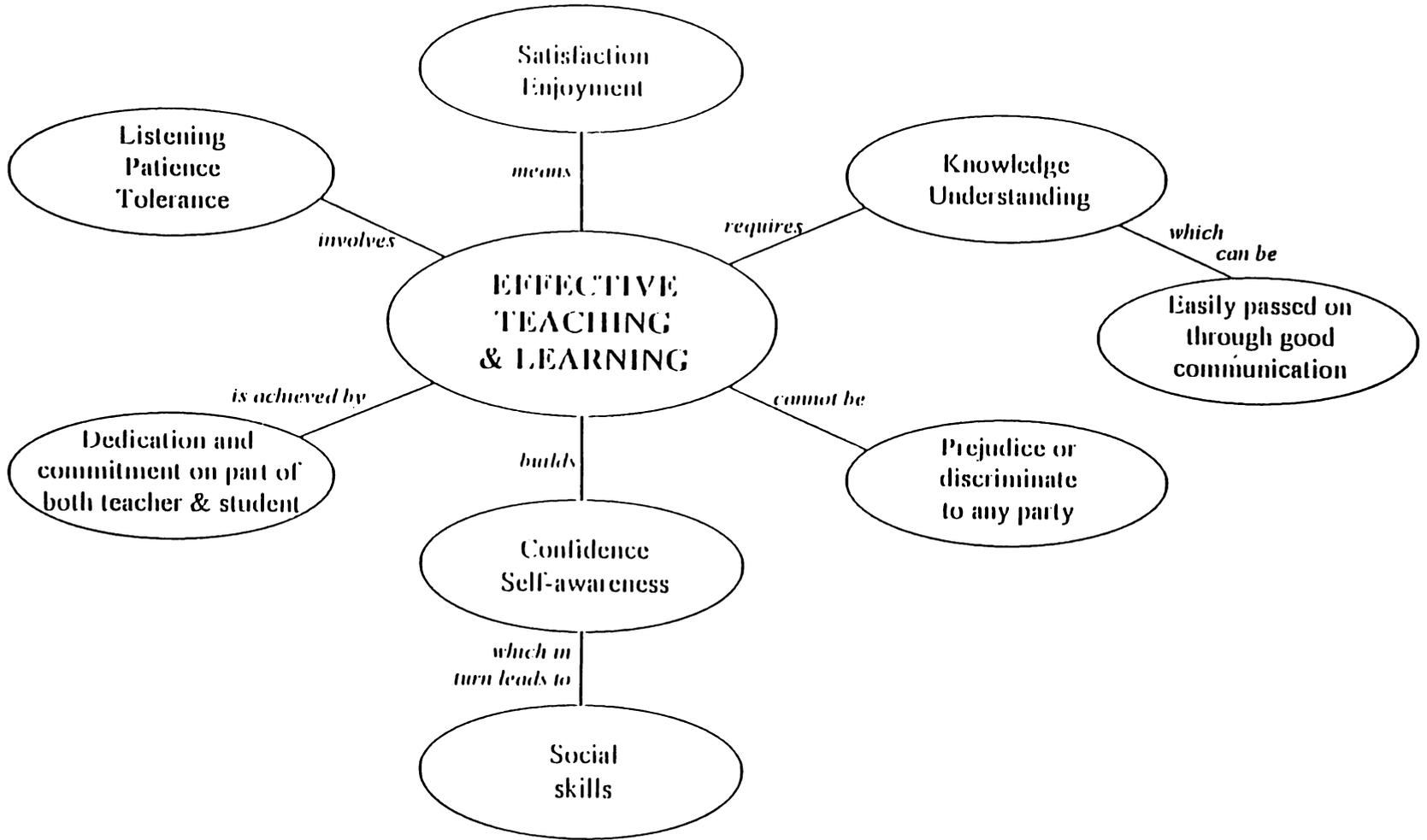


FIGURE 12. MEASURES OF PROGRESS 2

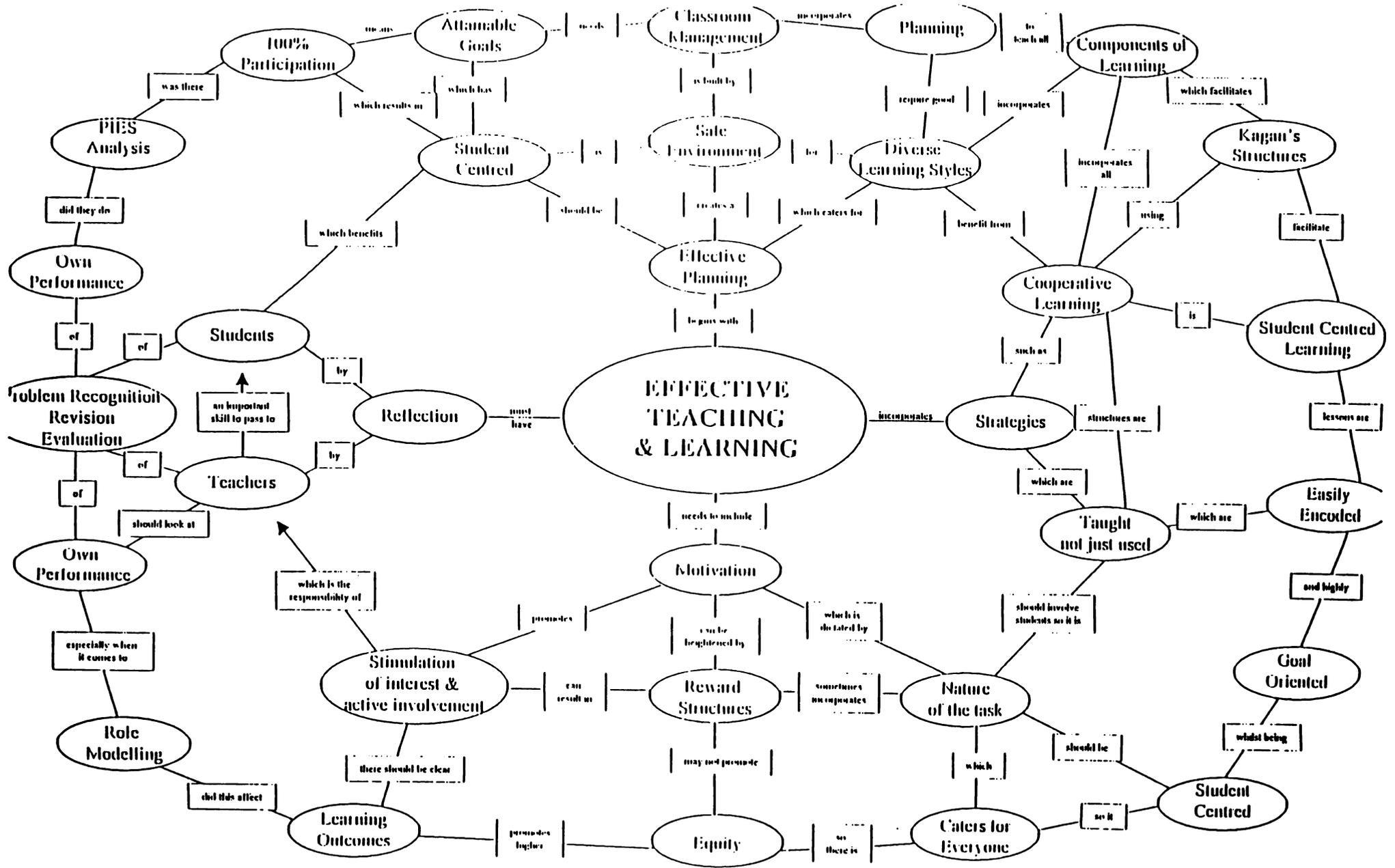


FIGURE 13. MEASURES OF PROGRESS 2A

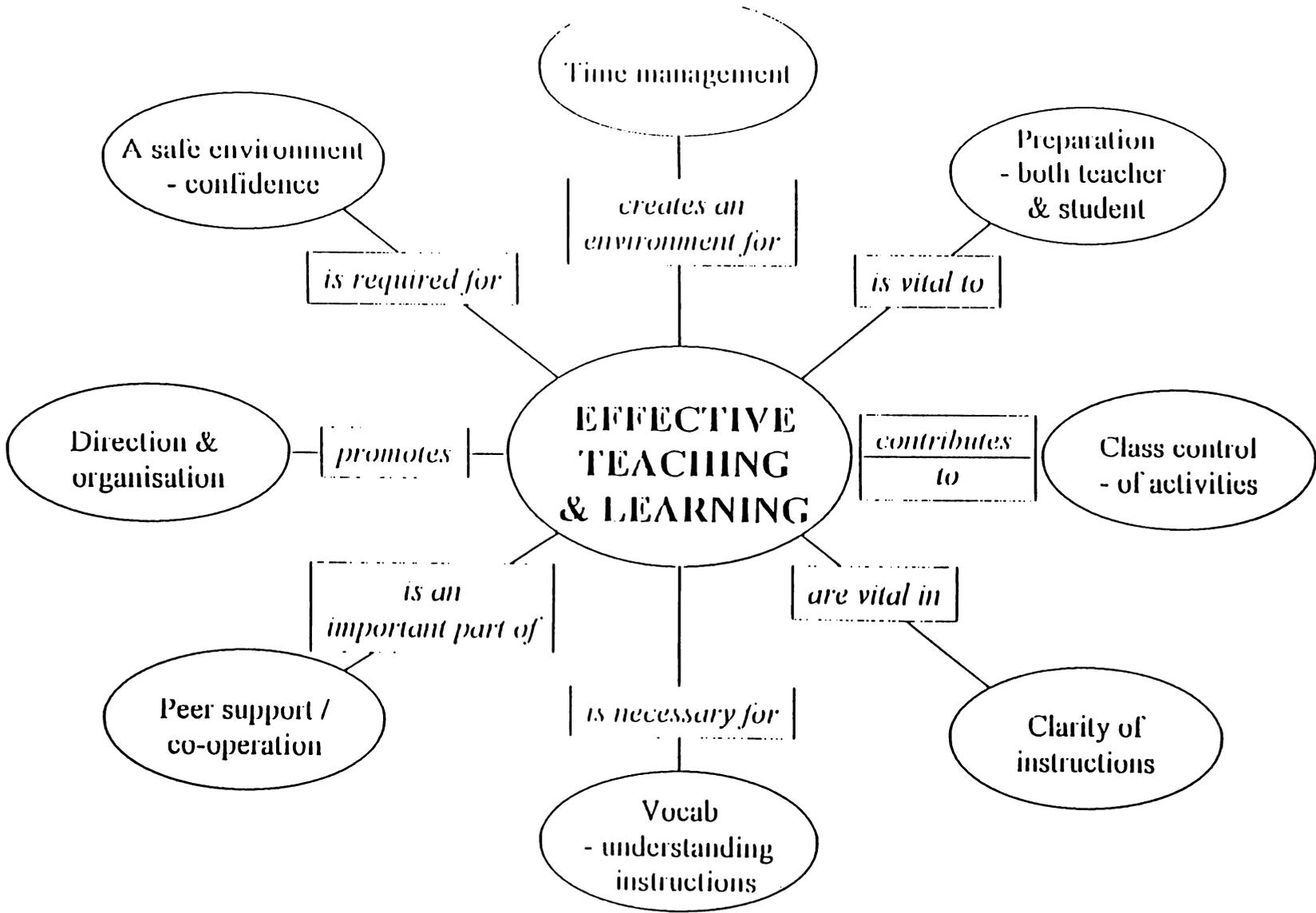
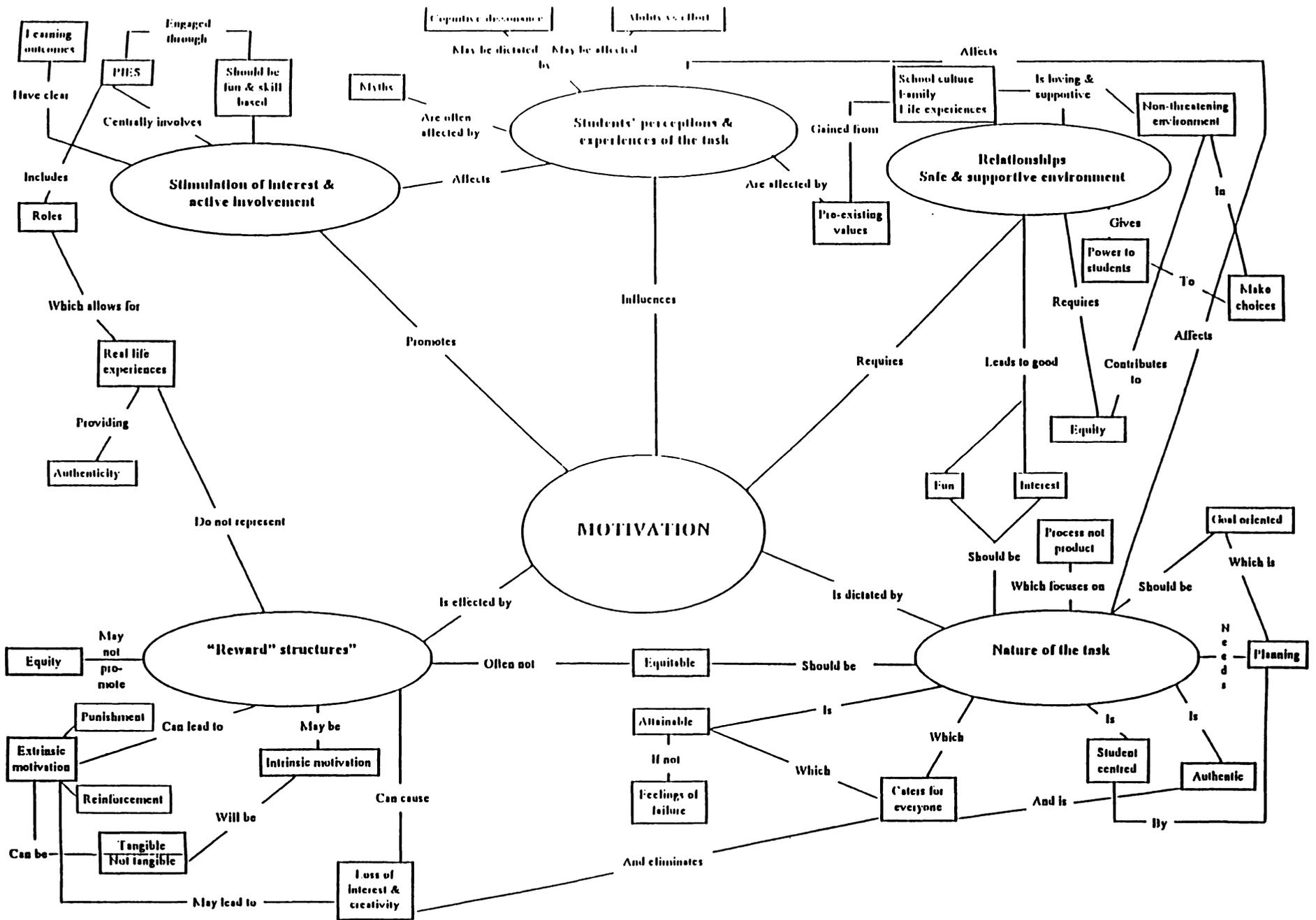


FIGURE 14. MEASURES OF PROGRESS 3



FIGURE 16. MOTIVATION I



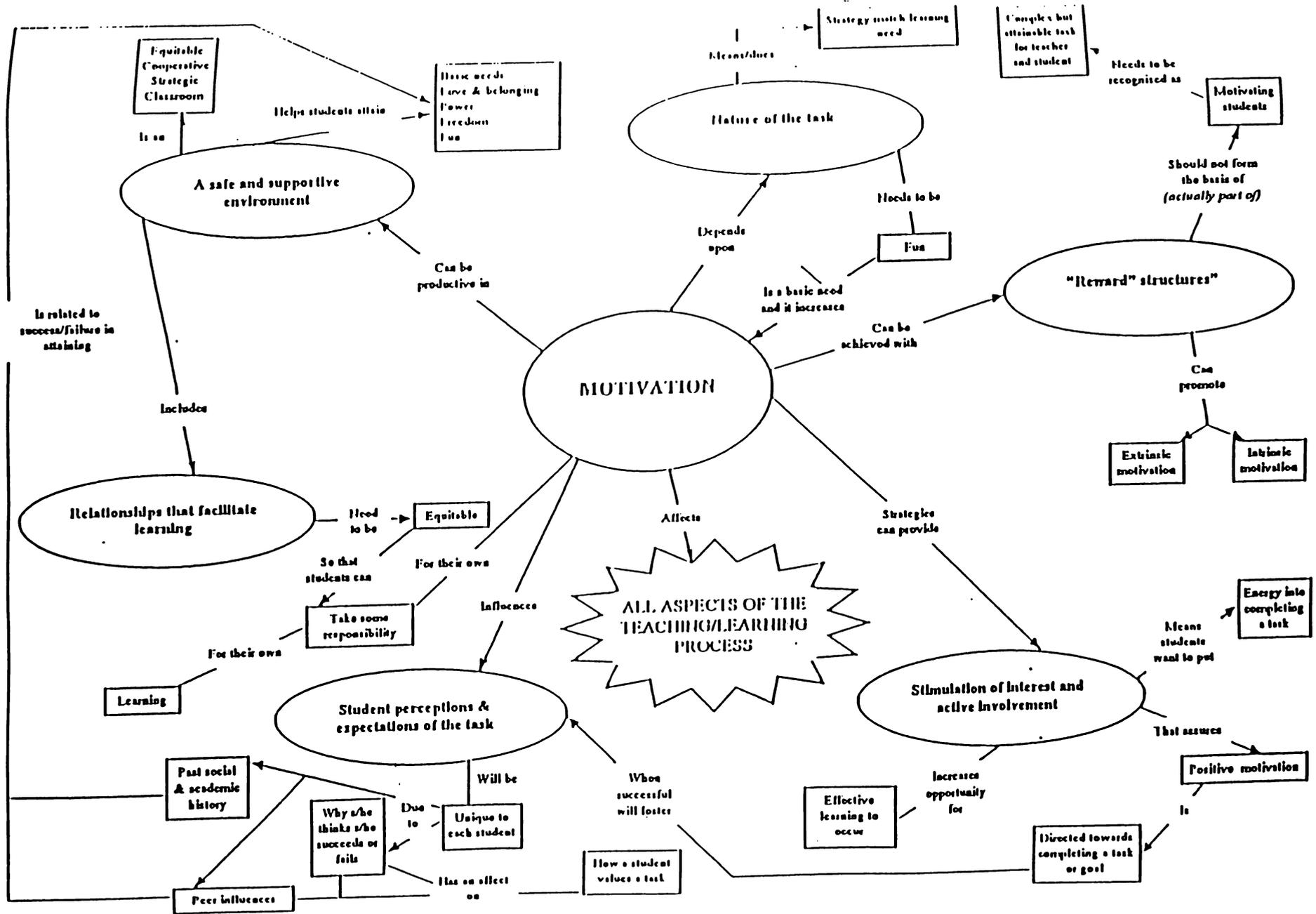
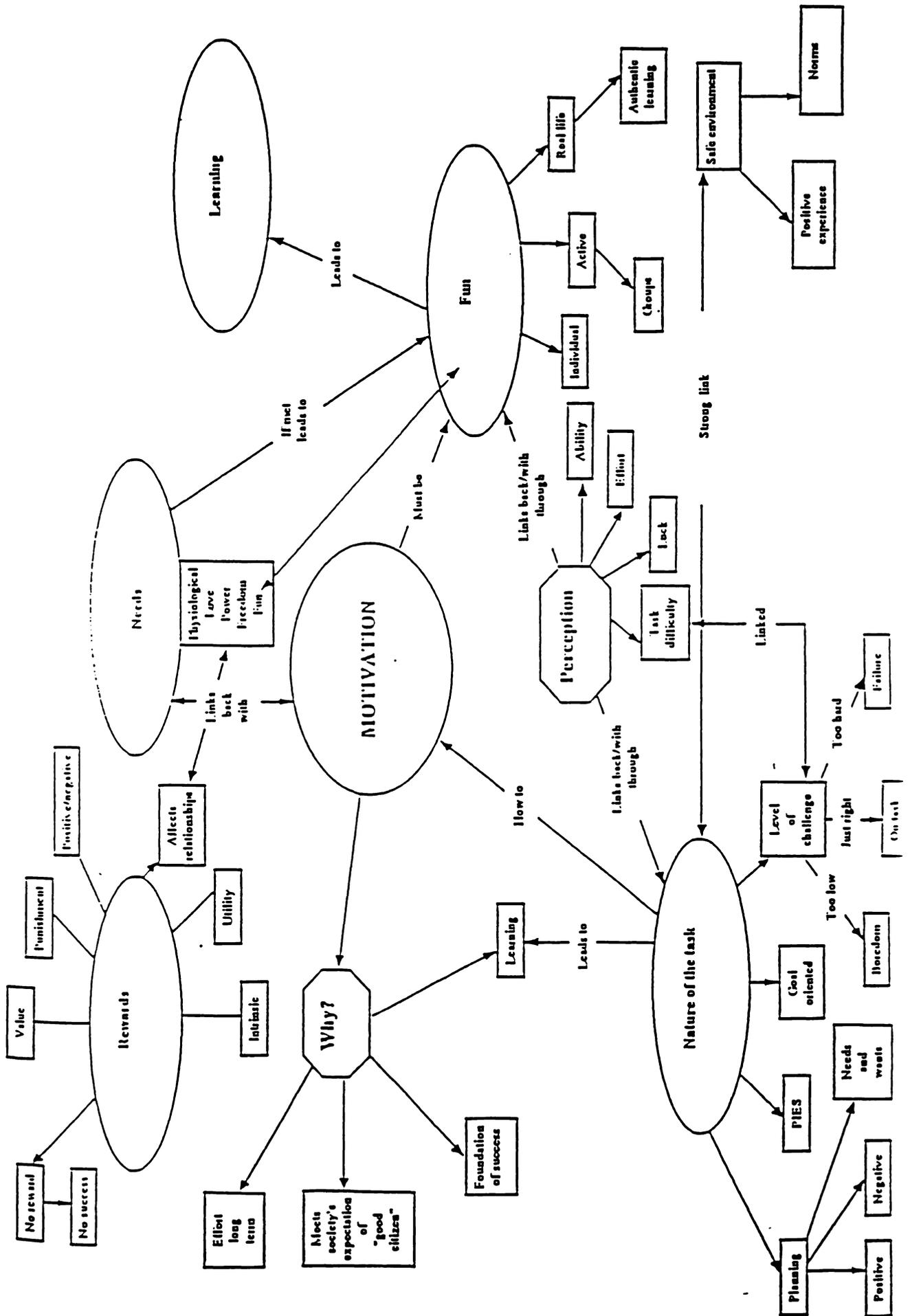


FIGURE 17. MOTIVATION 2

FIGURE 18. MOTIVATION 3



## Questionnaires

Trainees were asked a number of questions about teaching and learning at the beginning and on completion of their training. Three questions produced particularly interesting results— the three most important characteristics of a successful teacher, how learning takes place and causes of student failure. Their responses were compared with those of a group of experienced teachers who had undertaken an in-service course on strategies for effective teaching and learning. In addition the trainee responses to a question seeking the differences between cooperative and traditional learning groups was obtained. This too was compared with the responses of the experienced teachers.

Table Six shows the five most frequently identified characteristics of a successful teacher nominated by the trainees and compares them with those nominated by the teachers.

Table 6. Percentage Responses by Teachers And Trainees: Characteristics of a Successful Teacher

Cause	Trainees N=20	Teachers N=12
Relationships	60	8
Management skills	30	83
Communication with students	25	17
Knowledge of subject	20	8
Motivation as a teacher	15	42

The marked differences in these responses continued in one last response from the trainees, where 10% nominated an interest in professional development while the teachers did not mention this characteristic at all. No other characteristics was nominated by either group.

Table Seven shows the four highest attributions for each group for the ways in which learning takes place.

Table 7. Percentage Responses by Teachers and Trainees: How Learning Takes Place

<b>Cause</b>	<b>Trainees N=20</b>	<b>Teachers N=12</b>
Cognitive processing	65	58
Active participation	25	8
Benefit of previous experience	20	33
Motivation	10	17

The most frequently cited cause for both groups with regard to learning was in the notion that some form of cognitive processing was required (58% for teachers and 65% for trainees). This was a change from 35% to 65% of responses for the trainees from their previous beliefs. The second most frequent cause cited by the teachers was building upon previous experience (33%) while the trainees responded with 20% frequency. The third most frequently cited response from the teachers was motivational issues (17%) while the trainees cited this cause at 10%. Unlike the teachers, the trainees nominated active participation, interacting with learning materials as their second most frequently cited cause (25%) while the teachers only cited this cause at 8%. No other possible causes were cited more than 5%.

Table Eight shows the five highest scores for each group for the relative attributions to school failure.

Table 8. Percentage Responses By Teachers And Trainees Causes For Failure In School

<b>Cause</b>	<b>Trainees N=20</b>	<b>Teachers N=12</b>
Motivation	68	25
Inadequate teaching	47	8
Individual needs not met	42	42
Class/school environment	26	25
Inappropriate teaching strategies	21	17
History of failure	11	25
Basic skills	5	25
Poor communication	5	25

On the issue of causes of school failure, the teachers cited a failure to meet individual needs most often, while the trainees rated it the third most frequent cause (both 42%). Interestingly the teachers cited low motivation, a history of failure, lower skills levels, poor communication between teacher and students and class or school environment issues equally at 25% frequency in their responses as the second highest cause. While the students overwhelmingly agreed with the teachers on motivational issues, ranking it their most frequent cause (68%) their second highest ranking went to failure of teachers to ensure the use of appropriate teaching and learning strategies (47%). Their third most frequent attribution was a mix of classroom and school environment issues (26%) about the same as the teachers.

Of particular interest was the change in pre and post training attributions by the trainees to family and peer influences, changing from 75% at the beginning of training, to not being mentioned (0%) at the end of training. By way of contrast, the teachers rated this combination of causal factors 17%.

Finally, the comparison between knowledge of grouping arrangements, cooperative and traditional was compared. Table Nine shows the six most frequently cited characteristics of cooperative groups (not found in traditional group arrangements).

Table 9. Characteristics identified are present in cooperative groups.

<b>Characteristic</b>	<b>Trainees N=20 %</b>	<b>Teachers N=12 %</b>
Positive interdependence	79	50
Allocation of roles	79	25
Individual accountability	74	25
Groups social skills	26	42
Face to face interaction/Active participation	35	25
Group reflection	32	0

Table Nine shows that both the trainees and the teachers knew the fundamentals of cooperative learning and how it differs from traditional group work. What is interesting is that the practicing teachers seem to be more aware of the need to teach social skills than the trainees. However, the trainees were more aware of the importance of group reflection as a metacognitive element of group work.

### **Grid Analysis**

Table 10 shows the responses by the trainees to self selected elements of their preparation on which they rated their own progress. The figures in the table record the number of times the trainees nominated an item within each category, some of which had more than one subset.

Table 10. Comparison of trainee self ratings on progress using grid analysis (weeks 30 and 40)

Week	Management of self		Establish & maintain norms		Use of strategies & structures		Management of class or individuals		Motivation of class or individuals		Planning		Time Management		Assessment		Effective Teaching Methods		Safe Supportive Environment		Subject Knowledge	
	30	40	30	40	30	40	30	40	30	40	30	40	30	40	30	40	30	40	30	40	30	40
Level 1 Feeling Competent	4	6	7	20	5	9	2	4	3	3	6	11	2	4	0	2	14	34	7	13	0	1
Level 2 Need to fine tune	1	4	11	5	1	6	4	14	1	1	1	4	4	3	1	1	16	27	0	3	1	2
Level 3 Need to work on this	5	5	8	5	2	3	10	5	0	0	1	4	3	5	1	5	11	13	0	0	3	2

NB. The numbers in each cell denote the number of trainees selecting that item on each of the two occasions.

### **Use of strategies and structures**

Trainees were asked to identify the strategies and structures they used while on practicum sessions and rate them for frequency of use on a four-point scale. A simple distinction was made between those ratings that were used regularly and frequently and those used irregularly to distinguish them from those that were only tried on occasion. This was a difficult area to judge as some strategies fell into both categories, with some trainees using them regularly and frequently while others tried them only.

In an open-ended question, trainees offered collectively 68 strategic methods they had used and rated them for frequency of use. Obviously, some had used a strategy but rated it as used only infrequently. However, only one of the 68 items received less than one rating at level (2) or more, indicating that it was tried some of the time. That item was the Three Level Reading Guide, rated (1) “used only infrequently” by one trainee. The most frequently cited strategies were elements of cooperative learning. While the usual range of elements of cooperative learning were cited often, for example, positive interdependence, individual accountability, the use of roles, random reporting and the use of group reflection and cohesion exercises, trainees also reported some complex cooperative activities such as Jigsaw, Expert Jigsaw, Peer Tutoring and Constructive Academic Controversy. Altogether the trainees nominated 13 cooperative structures such as Think-Pair-Share, Numbered-Heads-Together and Pairs-Check. Besides cooperative learning, which was used by every trainee, the most frequently used strategies were advance organizers (19 of the 20 replies), graphic organizers, and a range of thinking and support frames such as DEFENDS, compare-contrast outlines, concept maps and spider maps (also used with the comprehension strategy RAP). The didactic “chalk and talk” structure was nominated by 16 of the trainees who completed the questionnaire. Site visits confirmed the effective use of these methods across the cohort.

The trainees were also asked to list strategies they believed they knew well enough to use if the opportunity arose in a future classroom. Fifty-three strategies were listed. Of these, four were repeated items from the list of 68 from the

preceding question. They indicate strategies not used for lack of opportunity by trainees on their practicum sections, an important point since in the latter part of the year, some trainees were placed with associate teachers who were not familiar with the strategic model and were reluctant to allow trainees to use other than “chalk and talk” methods.

Among these repeated strategies were a number that received high rankings; three stand out. The Human Treasure Hunt is a cohesion activity that some trainees may perhaps have been reluctant to try in another person’s class. Operant flashcards is a highly effective rote learning strategy that requires daily use, often not possible for trainees. De Bono’s coloured hats thinking structure requires considerable organization and experience on the part of the students and may not have been easy to implement. The number of trainees who nominated these strategies suggests they were well understood.

The strategies named above are commonly known and used in classrooms around the world. For this reason, individual references are not cited for each and every strategy. Many can be found in Brown and Thomson (2000). Others can be found in Algozzine, Ysseldyke and Elliott (1998), De Bono (1985), Johnson, Johnson and Holubec (1994b), and Kagan (1994).

### **Ratings of College and School Experiences**

The following tables show the ratings (given as percentages) of trainee views of school experiences and college support and training. The college ratings are for professional development only. The school ratings show two measures taken half way through the training programme and during the final practicum section.

Table 11. Trainee ratings by percentage of support in schools

Area of support	2 <sup>nd</sup> Section N=20	4th Section N=21
The support provided by the school as a whole was helpful and friendly	73	75
The support provided by the liaison teacher was helpful and friendly	76	76
The support provided by the main associate was helpful and friendly	90	82
Feedback provided on lesson planning, lesson delivery and general class management was focused and helpful	79	69
The school appeared to have a clear notion of what is important in assisting a trainee to become a well functioning professional e.g. discussion of responsibilities toward students, reference to curriculum documents, access to school schemes and adequate explanation of them, explanation of procedures	72	64

Table 12. Mean trainee evaluations ratings of professional studies course in college

Period	Relevance of the course Scale 1-5 N=22 to 20	Effectiveness of presentation Scale 1-5 N=22 to 20
TERM 1	4.95	4.9
TERM 2	4.85	4.8
TERM 4	4.95	4.95

## DISCUSSION

The results of the programme demonstrate major changes in the way trainees thought about teaching and learning. Trainees' ratings of how well they met course outcomes were quite subjective. The use of a mid-point and end-point measure gave an opportunity to track progress and find a benchmark for the final rating.

It is difficult to know how satisfactory the ratings are since there are no comparative data. From inspection, the ratings appear to be satisfactory. The range of confidence, across the trainee group, from 76% to 92% indicates some

variability. This would be expected if the trainees were being careful, thoughtful and truthful. It would be worrying if the ratings were equally very high!

It is interesting that the rating for “equity issues” was high at the half year and remained so. No specific workshops, seminars or lectures were given on the subject of equity in the first half-year yet this outcome ranked the highest at that point. In the second half year a major workshop was devoted to “special education.”

However, the whole course was structured to produce a “climate of equity.” The notion of a safe environment was stressed from the first seminar until the last. At the end of year class dinner, one trainee spoke about her growth in confidence and skill. She remarked that this was the only tertiary course she had taken in which she had felt safe to speak and contribute to the programme. As another example, there was equity about the way power was exercised (so far as it is possible to do so). When the usual “trainee biography” was requested from the class, the author supplied all the trainees with his own, written under the same conditions. The attempted message was not one of equality but one of equity.

The ratings for assessment were the lowest. It is arguable that this is the most “problematic” subject for secondary teachers at present. A half-day seminar from a representative of the New Zealand Qualification Authority was arranged to ensure the most up-to-date advice was obtained. Trainees had modeled for them a range of assessment methods in their training. These included formative measures, peer appraisals, criterion based and graded, summative methods. (In curriculum studies there was an assignment on assessment and course work on the subject.) On each teaching section, trainees were asked to observe and comment upon assessment methods seen in use. On the final section associate teachers were asked to concentrate on assessment in their mentoring. By the end of the year, trainees were still least certain on this aspect of their work. It is likely they share this state with their colleagues in schools.

Four ratings met or exceeded the 90% level. These were of (a) understanding of the learning-teaching process, (b) the ability to act upon relevant and useful

research, (c) the ability to accept feedback and reflect upon their own practice, and (d) a developing philosophy of content pedagogy. This is an interesting and heartening result. It can be checked to some degree by the responses to the cognitive maps and by other data not presented here (one major essay required a significant evaluation of the literature on effective teaching and learning, for example). These results suggest the trainees were, indeed, coming to grips with the necessary schemata of knowledge that might accelerate their progress through the “awkward” stage of beginning teaching.

Perhaps even more interesting is the rating on managing and motivating classes. This is the perennial difficulty for beginning teachers. Comparison of this rating with the grid rating is interesting. In the grid, the two issues appeared separately. Motivation was not mentioned often on either occasion. Management of individuals and classes received a number of nominations. The change was in the direction of improving confidence. By end of year the trainees believed they were “fine tuning” their work in this area where previously they had been rather more concerned.

Inspection of the concept maps shows growing evidence of trainees gaining a conceptual overview of their work. By inspection and from the scoring of the maps it can be seen that the trainees had developed a broad schemata of understanding. It is not possible to judge if this is sufficient to enable them the flexibility and automaticity to move adroitly in the classroom. What is clear is that at least the trainees can be seen to have some conceptual understanding of the situation. Taken together with the self-assessments of progress toward meeting the objectives of the course outline, it seems reasonable to conclude the trainees had developed a sense of the teaching-learning task.

A comparison of the trainees’ and teachers’ understanding of what secondary teaching is about throws some light on this issue. The experienced teachers saw management as a significant issue while the trainees appeared to have a rather sanguine view of this need. However, they had carefully assessed their competence in this skill and saw themselves as fine-tuning it in their self-reports. Their confidence may have been misplaced but they were at least speaking from

experience of four practicum sessions. Perhaps their optimism lay with their belief in sound relationships with their students and their knowledge of a wide range of teaching strategies. One promising element of the trainee responses was their recognition of the need for professional development, a matter completely ignored by the teachers (who were none-the-less engaged in it at the time).

Related to this point may be the confidence of the novice. The trainees had a close match with the teachers on the importance of cognitive processing in learning. In complete contrast to the teachers, they saw inadequate teaching and inappropriate teaching strategies as a cause for student failure, though they agreed completely on the importance of meeting individual needs and the impact of class and school environment on struggling learners. Since the trainees had completed four, month long school practicum sections, they were by then more than naïve observers of classroom situations. It might reasonably be expected that, given the quality of their conceptual understanding and their use of teaching-learning strategies the trainees might exercise some degree of acumen in judging the issues raised on student failure.

The analysis of the use of strategies and structures shows that the trainees were using a range of these approaches in their lessons. The use of these approaches is easily confirmed by the author who visited each trainee in their schools (most on four occasions). In every case a wide range of strategies and structures were in use.

An interesting comparison is also made of trainees with experienced teachers. The trainees used cooperative groups in all their teaching sections, most on each occasion they taught. The use of advance organizers was very clear, as were graphic organizers. One particular issue emerges from the use of advance organizers. Since teachers rarely use detailed plans for their lessons, some de facto for planning is important. The trainees were offered a range of planning approaches but the use of a “template” was recommended. As the year progressed a kind of stimulus fading technique was used. From an insistence upon detailed plans, trainees were gradually moved to the notion that a “mental template” should be in their thinking as they prepared for each lesson. The way to activate

this mental template was the advance organizer. This fits well with the notion of a “mental schema” while at the same time providing a scaffolded progression.

Of particular interest were the nominations by the trainees for “chalk and talk”. The use of this structure was not overlooked in the course; it was merely treated as one of many ways of working. Included in the method were many of the skills of interactive direct teaching (effective questioning, wait time and mixing teacher talk with cooperative pair work). Eighty per cent of trainees nominated the method as a strategy or structure (technically it is a structure) that means it had high value for some elements of teaching, as it should.

Given the wide range of other strategies and structures they used, the use of didactic teaching is regarded as perfectly acceptable some of the time. It is also interesting to note that “wait time” was nominated by half the trainees completing the questionnaire, 19 of the 20 respondents nominated Think-Pair-Share, 13 nominated Timed-Talking and 14 nominated 10-2, all strategies which are frequently used to break up lengthy didactic presentations to allow students to encode and process information. This is taken to indicate awareness of the need to balance didactic teaching with cooperative pair work.

The satisfaction levels expressed by the trainees indicate that they saw the college course as both relevant and appropriately presented. The differences between college and school ratings, while still showing schools are perceived as valuable training sites, redress the usual balance found in the international literature. If colleges of education and universities find the usual trainee reaction somewhat disappointing i.e. trainees believe they receive more relevant and useful training in schools, the remedy may well be in their own hands. The results reported in this study demonstrate that college training can be satisfying to trainees. The conditions that make this possible may need very close inspection.

## **CONCLUSION**

Analysis of the outcomes of this programme shows some very clear evidence of a successful course. The trainees have shown high levels of pedagogical knowledge

and understanding. Their confidence levels were high on completion of training and they showed signs of a strong commitment to thoughtful, reflective and flexible thinking and planning.

The trainees saw the contribution of the schools as valuable. Associate teachers were highly regarded in most cases. The trainees rated their college course highly, in contrast to most of the literature and common understanding. This is an important finding. It suggests that college courses for trainee teachers can be credible and offer authentic experiences. The conceptual knowledge illustrated in the concept maps, suggests the trainees were making sound progress toward the necessary pedagogical awareness claimed in the literature as essential for effective teaching.

There is much still to be done. If college courses are to be credible, they must demonstrate at least the same level of acceptability to trainees as the schools do. If college and school programmes are to be consistent and effective, a partnership must be forged between the college and the schools. Such a partnership must be based upon both equity and equality - neither can do the job properly without the other. True partnership takes time to establish. In only a few cases was this goal approached in the present review. Where it was approached, the results were positive.

The report goes some way to confirming the view that secondary teachers can be trained well in a highly intensive, one year programme. Such a programme must fully immerse trainees in a culture that values diversity, equity, critical thinking, positive interdependence, individual accountability and constructive controversy. It must also be credible, credible to trainees, teachers and others who value rigorous pedagogy.

Finally, this stepping-stone initiative helped in understanding what were to be important components in the RTLB training that followed. It is cautiously hypothesized that the trainee teachers developed conceptual understanding of the major elements of the teaching-learning process by being embedded in authentic, task oriented training. The concept maps, while not yet showing a complete

understanding of the teaching-learning process are certainly not naïve, nor do they show a lack of conceptual understanding of the major issues in establishing effective teaching and learning in the classroom. The trainees were compared with experienced teachers, who have undertaken additional training, in terms of some of their views about teaching and learning. There was a high level of congruence on some important elements of learning and about the causes of school failure. This suggests that intensive training of the kind described may well accelerate novice teachers' understanding of the fundamentals of effective teaching. These lessons contributed strongly to the RTLB training programme.

On the subject of the skills of cooperative group work, an interesting comparison can be drawn with the trainees, the experienced teachers and the teachers in the Two Schools project. All three groups noted the value of cooperative learning and all three experienced it in their training. The trainees appear to have had the best conceptual understanding with their recognition of the five fundamental elements of cooperative learning outlined by Johnson, Johnson and Holubec (1993). The teachers by comparison may have had a greater recognition of the need to emphasize social skills while they paid less attention to the more often overlooked element of group reflection. Though neither of these groups was asked the same question, the teachers in the Two Schools project were directly asked if they taught social skills. Their frequency of response to this question before and after their professional development programme rose from 43% to 65%. All of these responses are encouraging. What is significant for the RTLB training is the importance of ensuring not only that they are embedded in cooperative group experiences in their seminars and workshops, but also that they are required in their assignments to demonstrate experience and skill in conducting cooperative learning programmes in classrooms with their teaching colleagues.

## **PART THREE**

In Part Three, four chapters review some critical elements important in the implementation of a professional development programme for RTLB.

The first is a brief review of the issues surrounding change in education. In one sense, this thesis is about change. For this reason, it is important to consider how change can be managed in the development of staff who must implement a new policy which demands substantially changed behaviour from all those in the school system.

A chapter on professional development explores some of the important developments that have occurred in New Zealand and abroad. In particular, ways in which RTLB understand their role and find support for their work are examined.

Collaborative consultation is the method for RTLB to interact with their colleagues in classrooms and with school leaders. This chapter considers the ways in which collaborative consultation is conceptualized and taught in a professional development programme. It considers how collaborative consultation can be a vehicle for the transfer of problem solving skills into the classroom.

The final chapter in this part of the thesis looks at ecological assessment. The issues surrounding ecological assessment are reviewed in the light of a growing understanding of the ecology of the classroom. The importance of contextualised assessment involving the interaction of teacher, student and task is examined. A conceptual approach to the use of TIES II and its innovative use by a number of RTLB is described and illustrated.

## **CHAPTER SIX:**

### **CHANGE**

This chapter is about change. The issue of change in education is persistent and well traversed in the literature. Cuban (1996) has made the point that change can take one of two forms, fundamental or incremental. Fundamental change in education is of the kind called for by Hood (1998) or Capper, et al (2000). In this form of change, a major, far-reaching and significant restructuring of a system or part of a system is promoted. Capper for example, suggests that schools, particularly secondary schools are trapped in an anachronistic model that served its purpose up to and including part of the 19<sup>th</sup> century. The reform of this system, to provide effective learning for all of its current students, would require a complete restructuring not only of the schools but also of the processes and organization of teaching. A less complete but none-the-less significant change proposal can be found in the suggestions of McCaslin and Good (1992) who speak about the misalignment of modern curricula with existing school management structures. These authors suggest that as a consequence of this misalignment, many so-called reforms become merely symbolic and expedient.

Incremental change is characterized by smaller innovations, which add to or refine the existing organization and processes to seek improvement. In this case the changes are initiated within a system that may or may not be seen as acceptable. There is no intention however, when instigating incremental changes to challenge the foundations of the system itself. Cuban points out that incremental change can be a device to subvert a fundamental change, or as McCaslin and Good (1992) put it, incremental change proposals can simply be politically motivated.

This thesis reflects upon the writer's own work towards change in the New Zealand education system over a period of 25 years. The elements of the report that speak about the changes in special education have contributed something to

fundamental changes in delivery and practice which emerged within some parts of the SE2000 policy. Every change has a history. This is true for the evolution of new special education policy in New Zealand since about 1975. Thus, there were ongoing events, each of which laid the foundation for a paradigmatic shift. As always, any new policy stands on the shoulders of previous attempts to provide for educational need. Typical of the social sciences, those shoulders may not be steady, or even willing to bear the load. The constant slippage between the “two stories” of special education policy and practice (Moore et al., 1999) is an inevitable constant in our lives.

The development of innovative and effective professional development is an example of incremental change. It is true that to achieve the aim of improving teaching and learning some changes will require adjustments to school organization. However, it is likely that such changes are not readily within the compass of those schools that might be described as struggling or “stuck” (Rosenholtz, 1989). Ultimately the emphasis is upon the effects of such a change process in the organization and process of teaching and learning at the classroom level. Thus, both school organization and the culture of a school must be considered a focus in the change process. So too must the ways in which individual teachers conceive of the teaching-learning process.

### **CHANGE IS COMPLEX**

The complexity of change cannot be overstated. While writers like Hood (1998) and Capper, et al. (2000) advocate substantial change they also demand reform of both structures and functions. As Elmore (1995) has pointed out “Most school reformers take for granted that changes in structure produce changes in teaching practice, which in turn produce changes in student learning. Research on these connections presents, as we shall see, a much more pessimistic and complex view” (p.23). In fact, as Elmore makes clear, “The relationship between structural change in schools and changes in teaching are mediated by relatively powerful factors, such as the shared norms, knowledge and skill of teachers, and that changing structure has a slippery and unreliable relationship to these mediating

factors” (p.26). This same theme is expressed by Darling-Hammond (1998) in her insightful analysis of the change process and policy implementation.

Elmore (1995) points to the possible outcome of school reform as it is commonly seen – site based governance, principals as managers, teachers working together in planning, even multi-age classrooms and asks if it makes any difference to what goes on in the classroom. In New Zealand a complete restructuring of education governance and management was undertaken to enable the kinds of reforms cited by Elmore to be institutionalized (Tomorrow’s Schools, 1988). Goodlad (1983, 1984) notes that parents also favour site based governance and management, a factor which may have made the New Zealand restructuring more readily acceptable. As Elmore points out however, despite the support for such reforms, there is little evidence that of themselves, they lead to any change in teaching practice or classroom ecology.

Responding to his own concern, Elmore (1995) ponders the idea that:

Reforms might focus first on changing norms, knowledge and skill at the individual and organizational level *before* the focus on changing structure. That is, teachers might actually learn to teach differently and develop shared expectations and beliefs about what good teaching is *and then* invent the organizational structures that go to those shared skills, expectations and beliefs. (p.26)

The focus of such an approach would clearly be upon professional development, both in pre-service and in-service contexts. Furthermore, it is unlikely to occur without some kind of structural support framework that would act as a platform from which to launch such an endeavour. Elmore is in no doubt that such an approach carries none of the attractions to politicians or administrators of structural reform. It isn’t so visible, thus failing to signal its importance. It isn’t so easy, compared with a range of simpler (but often simplistic) alternatives available to politicians. Finally, he notes that it is a step into greater uncertainty than they prefer. Yet, in the presence of political and professional support, it has

much to recommend it. In this respect, a feature of the change of role for the RTLB is that of collaborative consultation. In this case, great care was taken to ensure the method and the practices were taught to a high standard. It would be too easy for the RTLB training too, to become an example of simplistic change. As Huefner (1993) notes:

Because of its intuitive attractiveness, a risk exists that the model will be implemented prematurely.... Among the likely and undesirable side-effects of hasty implementation are ineffective caseload management, conversion of the model into yet another tutoring model, premature replacement of the resource model, inadequate training of both regular and special educators, neglect of financial and programme evaluation, and insufficient funding support from regular education. (p. 403)

Darling-Hammond and McLaughlin (1995) make the point that reform in education currently being advocated in the United States demands of teachers a rethinking of their classroom practices. The vision of change emphasizes new skills and practices never experienced by teachers in their own education or in their training. The authors go on to assert that there is little support or training for these changes. The success of any such reforms would turn upon the capacity of the education system to provide that support and the willingness of teachers to engage in the demanding adjustments they would have to make. Indeed as Elmore (1992) points out, the demand is for conceptual change rather than for simple structural reform.

Calls for change are constant but schools are often resistant. The characteristics of change include those of organization (Timperley & Robinson, 2000) management and governance of schools (Coopers & Lybrand, 1988; Lange, 1988) and classroom level teaching practice (Terwel, 1999). What is being suggested is that if schools are not in themselves embracing cultures of change and do not implement some of the well researched strategies that are made known to them (Ysseldyke, 2001) we need to investigate what might work instead to bring about

the necessary acculturation (Darling-Hammond, 1993, 1995, 1998; Hargreaves, 1996; Lieberman, 2000).

The organization of schools is complex (Uline, Miller, & Tschannen-Moran, 1998). Any attempt to work with schools to improve the effectiveness of teaching and learning must take into account the complex structures of schools and schooling. Teachers are not only reliant on their own knowledge, both pedagogical and craft knowledge, but upon their successful application of that knowledge within the dynamic contexts of schooling. Darling-Hammond (1993) claims that:

Reforms that rely on the transformative power of individuals to rethink their practice and to redesign their institutions can be accomplished only by investing in individual and organizational learning, in the human capital of educational enterprise – the knowledge, skills, and dispositions of teachers and administrators, as well as those of parents and the community. (p.754)

This task may be doubly difficult for teachers placed in the role of consultant and mentor to colleagues seeking assistance. Hargreaves, (1992) commenting on Louden's work, points out that working with teachers in a peer coaching or mentoring role requires "quite exceptional conditions of trust and understanding among participating teachers of a kind seldom found in ordinary schools" (p.217). As Erchul and Martens (1997a) note, consultant teachers need the skills and understanding of social power and interpersonal influence, a target area of skill development for RTLB training. The skills required of change agents, for that is what this SE2000 reform has made the RTLB, are complex. The reform has to do with teachers working in problem solving teams on preventive as much as compensatory strategies. Friend and Cook (1996) identify skills of collaboration as fundamental. Their analysis suggests the RTLB would need to be able to create a condition of collaboration for reform to succeed. Certainly their interventions as change agents will represent a journey rather than an event or, as Stoll and Fink (1994) suggest, an odyssey.

In their discussion of school culture, Stoll and Fink (1996) note that in the current demand for change, schools fall into categories of improving or declining (see also Stringfield & Herman, 1996). These authors, together with others (e.g. Hargreaves, 1992) speak about the cultures of schools and the ways in which schools explicitly influence the climate for change. Some schools are more ready for change than others. The question is, what is required to ensure consultants are well equipped to recognize the level of readiness and how to respond to it.

Commenting upon teachers' efforts to reconstruct their practice, Spillane (1999) describes how teachers respond to influence from policy, professional, public and private sector ideas. In his study of mathematics teachers, Spillane found that in all but four of 25 classrooms, efforts to effect reformed practice "did not represent change of the core of instructional practice" (p.145). These results from a study in the United States are consistent with those found by Roelofs and Terwel (1999) in the Netherlands. Teachers who believe they can make a difference are more likely to practice preventive or problem solving strategies in the classroom (Jordan, Kircaali-iftar, & Diamond, 1993; Jordan, Stonovich, & Roach, 1997; Kruger, 1997; Pressley, 1997). To do so it seems, it is not enough that teachers merely understand the nature and purpose of the change however. As Spillane points out, his sample of teachers involved in a required change in their practice at least knew the policy, claimed to understand and agree with it and, furthermore, to practice in a manner consistent with the reform. Spillane's explanation for this apparent inconsistency is one that goes to the core of effecting change in practice. Besides the opportunity to learn of reforms and to practise accordingly, teachers must also have "enactment zones" which are "social rather than individualistic; involve rich deliberations about the substance of the reforms and the practising of these reform ideas with other teachers and the reform experts; (and) include material resources or artifacts that support deliberations about instruction and its improvement" (p. 171). To this list must be added, the collegial support of those working with teachers attempting new teaching procedures (Isher, Johnson & Johnson, 1998). The failure of many reforms of teaching practice may be traced to the lack of such a comprehensive approach (Collinson, 2000; Johnson & Johnson, 1999; Lieberman, 2000).

The introduction of a new policy brings with it not only an intention for change to occur but also the challenges in an interaction with other policies, practices and preferences that may not be compatible with the new policy. An important lesson to be learned from the development of the support teams (Moore, Glynn, & Gold, 1993) was that the policy was easily subverted by those with sufficient influence (for example, some secondary school principals) and in the absence of any strong accountability. Furthermore, the lack of a mandated (as opposed to a recommended) approach to training led to a diminution of the intent of the policy for those charged with its delivery. Finally, the freedom of significant players to recruit into the task teachers who were not necessarily suited to it, let alone committed to the requirements of the policy, further subverted the intentions of the programme.

Policies on inclusion in at least some aspects of special education are now common in most Western countries (Booth & Ainscow, 1998; see also the UNESCO Final Report of the World Conference on Special Education, 1994). They are consistent with political notions on inclusion that may well be reactive to the more individualistic policies of so called right wing governments. However, policies are always political and open to changing political influence. In New Zealand, for example, Mitchell (1999) cites the Minister of Education, in an address to secondary school principals saying, "Mainstreaming had gone too far" (p.44). Clearly the Minister was questioning the policy of his own government. In a contrasting way, a subsequent Minister of Education has intervened to prevent (mainly) secondary school principals "double dipping" their resource allocations by requiring RTLB to teach in closed special classes and units while receiving funding for those classes in other forms (personal communication, 14 November, 2001). Each represents the ways in which policies are in constant evolution, both in how they are defined and how they are administered.

In a careful analysis of policy and politics, Thomas and Loxley (2001) point out there can easily be antagonism between even explicitly articulated policies and existing practices, usually owing to their ancestry to previous policies. They cite the case of inclusion in the United Kingdom, supported by recent policy but

inhibited by such other policies as school enrolment, parental choice of schools and attainment targets, all of which mitigate against inclusion of students with disabilities or struggling students. These same issues are every bit as prevalent in New Zealand. When the RTLB programme was begun with the SE2000 policy, principals were free to require the resource teachers to work in special classes and a few did. By devolving the management of schools to a site based model, the central organization, the Ministry of Education, accepted that what Weatherley and Lipsky (1977) called street level bureaucrats would interpret policy for themselves, and so they did with SE2000. Over 180 RTLB cluster committee chairpersons were required to decide how the policy should be interpreted and delivered.

Both Thomas and Loxley (2001) and Darling-Hammond (1998) make the point that change is more complex than a simple analysis by “top down” or “bottom up” development may suggest. Darling-Hammond seeks a blending of the two, describing policy development as an exercise in learning rather than compliance. Thomas and Loxley (citing Fulcher) speak about policy “Conceived as a continual process, wherein formulation and implementation take place at all levels within an education system” (p.98). These authors conclude, much as Darling-Hammond has suggested, “If (this) commitment to what works is backed up by funds and regulation, for example on mechanisms of finance, there is every reason to believe that change leading to inclusion can be effected” (p. 101). None-the-less Thomas and Loxley suffer no illusions that consensus is easy to find. As we said in our own analysis of the development of the RTLB programme (Thomson, Brown, Jones & Manins, 2000) the multiparadigmatic nature of the process inhibits consensus.

## **CHANGE IN NEW ZEALAND**

The decision to fund special education by block grants and to re-organize resource teachers as consultants and advisers through SE2000 has finally established the beginning of the democratization of special education that was first proposed in the Draft Review of Special Education (1987). An innovative model of delivery of the RTLB training programme was required for the paradigm change that the new

policy heralded. The major issues to be faced were the delivery to schools and, closely linked to the first, ways in which resource teachers themselves could be equipped for the task. Cremins (cited in Darling-Hammond, 1993) asserts that previous reforms of education in the United States failed because appropriately trained teachers could not be recruited. Darling-Hammond goes on to say, "Current efforts at school reform are also likely to fail unless they are built on a foundation of teaching knowledge and are sustained by a commitment to structural rather than merely symbolic change" (p.755). In their review of teacher education and change, Fullan and Hargreaves (1992) cite Huberman and Miles as saying, "Large scale change-bearing innovations lived or died by the amount and quality of assistance that their users received" (p. 2).

Pink (cited in Fullan & Hargreaves, 1992) lists twelve barriers to innovation effectiveness in education:

1. an inadequate theory of implementation, including too little time for teachers to plan for and learn new skills and practices;
2. district tendencies toward new skills and practices;
3. lack of sustained central office support and follow-through;
4. underfunding the project, or trying to do too much with too little support;
5. attempting to manage the projects from the central office instead of developing school leadership and capacity;
6. lack of technical assistance and other forms of intensive staff development;
7. lack of awareness of the limitations of teacher and school administrator knowledge about how to implement the project;
8. the turnover of teachers in each school;
9. too many competing demands or overload;
10. failure to address the incompatibility between project requirements and existing organizational policies and structures;
11. failure to understand and take into account site-specific differences among schools; and

12. failure to clarify and negotiate the role relationships and partnership involving the district and the local university – which in each case had a role, albeit unclarified, in the project (p. 3-4).

Each of these could be applied to the task outlined in this thesis, including (unusually for policy implementation in New Zealand) the twelfth one. While not all of these issues are identified as part of the responsibility of an academic professional developer as outlined in this thesis, it is clear never-the-less, that they must be recognized as elements of the context in which the developmental work represented in the thesis was placed.

Darling-Hammond (1993) lists three “investments” necessary to do what she calls reframing the reform agenda. In a sense these encapsulate the twelve points identified by Pink. These are political, policy and professional development (p. 759). Though it is not the purpose of this thesis to argue on behalf of the Government or the Ministry of Education, it could be said that the investment in political and policy development was being put in place when the teaching institutions responsible for the RTLB training addressed the issue of professional development. This could be set out as follows:

1. There must first be an alignment of political intention, policy and professional development.
2. There must also be a clear mandate for the establishment of an environment that supports the intended practice.
3. Finally, there should be an investment in individual and organizational learning.

In the policy initiative described here, this “investment” could be viewed within the following framework.

Table 13. Outline of policy implementation, following Darling-Hammond, 1993

INVESTMENT	ACTION
There must first be an alignment of political intention, policy and professional development.	The government approved a new policy, Special Education 2000 (SE 2000). The Ministry of Education promulgated the policy to all schools in New Zealand and established the RTLB service.
There must also be a clear mandate for the establishment of an environment that supports the intended practice.	All schools were offered targeted training in working to meet the policy intentions. Additional funding to every school to support their inclusion practices. One RTLB position for every 750 students.
Finally, there should be an investment in individual and organizational learning.	RTLB to be trained over two years, at minimal personal cost. Study leave granted. Study directly related to practice.

The characteristics of an innovative model then, are likely to demand sufficient of the following to ensure a kind of critical mass:

- Policy underpinnings in administrative and regulatory form.
- Receptive schools, accepting of the policy and willing to advance it.
- Adequate and flexible resources.
- Well trained resource teachers who are professionally at ease in regular classes and able to pass on their skills.
- Class teachers who are increasingly well trained in dealing with a wide range of diversity in the classroom.

In putting the model into effect, the underlying assumptions must include the belief that all children are educable. A foundation principle of the New Zealand Curriculum Framework (1993) states that it applies to “All students, irrespective of gender, ethnicity, belief, ability, disability, social or cultural background, or geographical location” (p. 3). This belief is also made clear by the American National Association of School Psychologists (1994). High levels of teacher efficacy are important: (DeForest & Hughes, 1992; Ghaith & Yaghi, 1997; Jordan, Kircaali-iftar, & Diamond, 1993; Jordan, Stonovich, & Roach, 1997;

Kruger, 1997; Stanovic & Jordan, 1998; Tsui, 1995). So too is a conviction that schools can make a difference (Rutter, Maughan, Mortimer & Ouston 1979; Sammons, 1994). In such a system, heterogeneity is valued (Riehl, 2000). Finally, the evidence that resource teachers can be effective (Erchul & Martens, 1997; Erchul & Raven, 1997; Martin, 1978) must be acknowledged.

The practices within such a system must be based upon educational data, incorporating the ecology of the setting, the practices in place, characteristics of the child's behaviour and the status of the child's educational achievement.

And finally, the approach we use must be collegial and the orientation must be toward problem solving. A professional development programme was devised for RTLB which would include five fundamental themes and seven outcomes. The themes are:

- a collaborative consultative model of problem solving in service delivery;
- a focus upon an inclusive teaching philosophy;
- an educational/ecological approach to assessment and intervention;
- acknowledgement of cultural values and preferred practices from a Maori worldview; and
- reflecting and evaluating professional practice.

The seven outcomes are:

1. work to a high professional and ethical standard;
2. recognize and promote the bicultural nature of the New Zealand education system;
3. work to ensure equitable educational opportunity for all earners;
4. follow an educational model;
5. work to a collaborative consultation model;
6. be skilled practitioners and promoters of effective teaching skills; and

7. be reflective practitioners.

Comparison of these themes and outcomes with the Ministry of Education handbook (2001) demonstrate that the programme was able to meet the test of agreement between the policy and the training. Elsewhere in this thesis the origins and basis upon which the first three of the themes of the RTLB programme are founded are elaborated.

Having said all this, one is left with a strong theme that lies behind the stepping-stones of this thesis – namely, a passion for quality in special and regular education. Hargreaves (1997) puts it this way:

Our change efforts have been so preoccupied with skills and standards that they have not gotten to the heart of what a great deal of teaching is about: establishing bonds and forming relationships with students, making classrooms into places of excitement and wonder ensuring all students are included and no one feels an outcast. (p. ix)

To achieve this ambition, the RTLB training should ensure that the conceptual issues behind the reform of SE2000 are understood. It must provide for these resource teachers to be sufficiently well prepared to maintain the changes in the face of the inevitable resistance that accompanies change. Resistance will be manifest in at least some, perhaps more than a few schools. RTLB must be able to offer leadership to colleagues – not just class teachers but school leaders and associated professionals who may still be catching up with the paradigm shift that is occurring.

## **CHAPTER SEVEN:**

### **PROFESSIONAL DEVELOPMENT**

In establishing a cadre of resource teachers, account had to be taken of the then current practice (and preference) of many resource teachers in their role of “withdrawal teaching.” Account had also to be taken of the range of skills needed by many resource teachers who would not yet be ready to support inclusion in their schools through collaborative consultation. For example, intake data for RTLB entering training showed that only 3% came with professional training as psychologists or counsellors and only 30% came from special education positions requiring some level of collaborative contact with regular class teachers. Of the total RTLB intake, only 35% had a qualification in special education, and for many, this may not have included content on collaborative consultation (University Consortium Milestone Report to the Ministry of Education, September 1999). Furthermore, echoing the experience of the research into support teams (Moore, Glynn, & Gold, 1993; Moore & Sheldon, 1989; Sheldon et al., 1989) some principals did not wish to consider the change from routine withdrawal of students to enskilmment of their classroom teachers, through consultation and support. Never-the-less many resource teachers and many principals welcomed the new found opportunity the SE2000 policy offered them.

In setting out the requirement for training psychologists to work in a consulting role, to assist teachers to develop effective classrooms, Berliner (1988) suggested:

Professionals assigned to helping teachers implement effective classroom interventions must be caring and knowledgeable people, willing to work in classrooms over a lengthy period of time. To be knowledgeable means to have learned a body of findings, to have understood a set of concepts, to have gained experience in using

new technology, and to have assimilated certain theories to guide classroom observation. (p.323)

For some years now, Charlotte Thomson and the writer have been working with teachers to develop a model for in-service professional development for strategic cooperative learning, strategic classroom and the use of “lead” teachers involving collaborative consultation. In a series of papers, we have reported the results of our work in in-service and pre-service teacher training (Brown, 1992, 1996; Brown & Belton, 1991; Brown & Thomson, 1993, 1995a). Our work has been guided by a number of well-established precepts from the literature on school change (Cohen, 1990; Cross, 1987; Cuban, 1984; Fullan, 1994; Fullan & Newton, 1989; Hargreaves & Fullan, 1992; King, Hayes & Newman, 1977; Redding, 1990; Schmuck & Runkel, 1994). During that time we have learned many lessons about what is important and how necessary it is to attend to the culture of teaching itself. While the RTLB programme has an academic focus determined by the policy under which it is established, it is necessary to consider the context of the task as well as the task itself (i.e., its content and logistics).

Certain fundamental principles have emerged from this work. These principles have emanated from the groups with whom we have been working and they clearly apply to the planning for RTLB programme development and training. The principles which contributed to the training are understanding the role, putting theory into practice, gaining commitment, support and understanding organisations and structures.

## **UNDERSTANDING THE ROLE**

While this principle is often suggested as a general condition (e.g. Cohen, 1990) it is particularly important for teachers who will be working as resource advisors to colleagues in regular education classrooms. Our experience with a major development programme (Brown & Thomson, 1995b) demonstrated that the transition from classroom teacher to professional leader is a major re-orientation, which not all teachers manage easily.

Critical to the success of the policy is that the resource teachers have a clear understanding of their role (Dettmer, Thurston, & Kyck, 1993; Friend, 1984). Not only must they assimilate a new model in conceptual terms, they must also have the commitment to apply it (Glynn, 1998). This commitment would be demanded of them from the first days in their new role. Failure to apply the role in the early days of implementation of the policy may see a default to prior behaviours on the part of many RTLB. While there appears to be a limited literature on the notion of resistance to change from consultants themselves, there is a literature relating to resistance by teachers both to consultation and to change (Elliott, 1988; Friend & Bauwens, 1988; Harris & Cancelli, 1991; Hawryluk & Smallwood, 1986; Kratochwill, Elliott, & Rotto, 1995; Piersel & Gutkin, 1981) which would appear to generalize to the context of consultants facing a new role. This point will be considered again.

## **THEORY INTO PRACTICE**

Darling-Hammond and Ball (1999) remark that it is a given that theory is expected to be integrated into practice in most pre-service and in-service professional development. They go on to speak about the growing recognition of an unattended critical gap in the divide between theory and practice. Discussing student teachers particularly, they note “the effect of teacher education is small when theory is divorced from practice” (p. 18). This point is made elsewhere when referring to the third stepping-stone of this thesis, pre-service education. For RTLB, the issue is somewhat different. Rather than be influenced by the teachers they observe during their practicum work, as are student teachers, RTLB are most likely to be influenced by their prior teaching experiences. Most of these experiences have been gathered within a functional deficit paradigm of special education. Furthermore, as with many teachers, RTLB practice has not always been as closely bound to theory as might seem desirable.

Darling-Hammond and Ball describe typical in-service programmes as basically atheoretical – “With enthusiasm and clever quips, session leaders distribute materials, tips and guidance. Teachers eagerly collect handouts and reproducible worksheets” (p. 19). These authors not only find this approach unsatisfactory as a

means of effecting teacher growth, they also see it as sustaining the isolation and individualism of teachers.

In his discussion of the relationships of theory to practice, Shulman (1998) considers Dewey's and his own views on this issue in professional development. Shulman notes Dewey's concern that teachers in his own day were "far too susceptible to passing fads and lofty rhetoric" (p. 514) arising from the impact of practicum work (in this case an apprenticeship model). This issue is dealt with in the third stepping stone report. Shulman goes on to unpack some of the issues of this important connection which bear upon the development of the RTLB programme and which are reflected in the stepping-stone projects of this thesis. The task is to find an appropriate connection between theory and practice, and to effect the growth of practice from theory. Yet this process has to be coupled with reflection on practice, such that the two inform each other. Finally, each practitioner needs to be able to find this nexus in his or her own work. Shulman puts it this way:

We may now see an emergent new view of education in the professions, and of teacher education. These emergent ideas connect to each of the commonplaces of professional learning: moral vision, theoretical understanding, practical skills, the centrality of judgement, learning from experience, and the development of responsible professional communities. (p. 525)

In his analysis of changing conceptions of learning, Mayer (2001) discusses the interaction between (theory oriented) psychology and (practice oriented) education:

If education involves the guiding of learning, then education would be enriched by a better a understanding of how students learn....Thus, I come away with a sense that continued progress is most likely to be made when psychologists and educators work together to apply scientific methods to understanding learning and teaching of authentic academic tasks. (p. 68)

Darling-Hammond and Ball (1999) have the last word on this issue:

Professional development that links theory and practice, that creates discourse around problems of practice, that is content-based and student-centered, and that engages teachers in analysis of teaching can support the serious teacher learning needed to engender powerful student achievement. (p. 29)

Certainly, from the Two Schools Project onwards, the intention was to find this balance. An interesting element of the first two projects reported here, the Two Schools study and the second project, Effective Teaching and Learning, was that the teachers were all experienced practitioners who brought deep subject knowledge to the task. As in the third project, the content knowledge was taken from curriculum information (in the pre-service project, from the students' curriculum studies) while the theoretical information was played out in simulations, mentored classroom experiences and seminars.

## **COMMITMENT**

When teachers voluntarily enter into further training they are likely to be well motivated to commit to the programme. This has certainly been our experience. In one case (Brown & Thomson, 1994) we found that seven months into the programme, 92% of the teachers involved were actively practising the skills (cooperative learning). Whether this might be the case for a group of teachers who have largely been required to enter into re-training is less certain. Despite the view of some writers (e.g. Wade, 1984) one must be aware that this RTLB programme may have been affected by the requirement to take the training. The difference in this case is in the length of training (two years) and the level (graduate study - able to be credited to a Masters degree - rather than the much more usual non-graded, shorter-term course).

To maximise the opportunity to develop understanding and skills that teachers take from this programme, it was important to elaborate carefully the rationale for

the policy. It was also important to scaffold the teachers through the programme, in order to ensure those who are less confident experience success while beginning to adopt their new role.

It has been our experience, together with the experience of others reported in the literature (e.g. Showers, Joyce & Bennett, 1987), that teachers who gain feelings of competence and find the programmes worthwhile in terms of transfer to their work sites, become committed to the ideals and practice being suggested to them. None-the-less, resistance to change is present in every new development and must be expected. Elmore (1992) speaking in more general terms suggests that for change to be accommodated, conceptual understanding of the change must be modelled and practised. Wickstrom and Witt (1993) define resistance as “Anything that impedes problem solving or plan implementation and ultimately problem resolution” (p 160). Overcoming resistance to a changed or unfamiliar role must be an element of the professional development programme.

## **SUPPORT**

There are two levels of support required is effective professional development of RTLB. The first is that from the policy makers - in this case central government and its agencies. Support should be present in the dissemination and maintenance of the policy and its general implementation. It will never be certain that officials of the policy making department will be sufficiently rigorous in their obligation to inform schools of the requirements of the policy, or to support resource teachers in carrying out duties consistent with the policy. In this case, the resource teachers’ training needed to equip them with the capacity to hold firm to a policy in the face of resistance. Thus, an understanding of resistance and negotiation would be an important part of their training.

Leaving the schools aside for the present, what is not so certain is consistency in the application of the policy across all the agencies. Many resource teachers would be working in a context where external special education agencies do not ensure that advice given for students, either those with whom the resource teacher is working, or others in the same school, is consistent with the policy, and

therefore with their training. Should this prove to be the case, the implementation of the training programme could be jeopardised. Again, the training programme needs to provide an antidote, so to speak, for such an eventuality.

The second element of support is that from within the clusters of schools served by the resource teachers and, particularly, the school in which the RTLB is based. Principals of these schools are required to make much the same kinds of adaptations to their thinking and practice as the resource teachers. Where these people are committed to the new model of delivery of special education, resource teachers would find themselves in a strong position to effect positive changes in their practice. Principals and teachers of regular classes who are not supportive of the methodology demanded by the new policy initiative would raise important issues of consistency and implementation by the resource teachers.

For all these reasons, it was important that school leadership issues be addressed. In some cases those of us involved in the professional development programme were also involved in the contracts to explain and elaborate on the implementation of the policy. In all cases, however, it is important that local support be available. This is not a programme that can be run from a distance!

## **ORGANISATIONS AND STRUCTURES**

There is a range of organisational structures that must be understood by the resource teachers. The training programme has been developed in such a way that the teachers will recognise classroom, school and community structures that have a bearing on schools and education. The RTLB would have an understanding of such structures in two ways.

First, the nature of the ecology of the classroom and the school must be emphasised. It is important to understand the broader infrastructures of community, including recognizing those in the community who are important as resources and those who are able to intercede or support. This applies particularly to understanding the roles of Maori members of the school community, and to Maori representatives from different iwi and from Maori organizations.

The second element of structure is that of the education system itself. The SE2000 policy is in some ways radical in its re-interpretation of special education delivery. The resource teachers need to understand its effect upon operations at the school and at the level of school resourcing.

### **SUPPORT DURING TRAINING**

The courses established for this programme would differ from typical university teaching programmes in one particular way. Because the training is transformational as well as developmental, teachers would be engaged in on-going, reflective activities which would be supervised both by university staff and senior professional colleagues working with the universities. The purpose is obvious; if we expect the teachers to follow the precepts outlined in their professional development courses, it behoves us to provide them with the support necessary to perform their role with confidence.

It is also our experience that without external support schools do not easily deal with the implementation of new developments (Brown & Thomson, 1995b). In a related study (Moore, Glynn & Gold, 1993) secondary schools in particular quickly drifted away from within-school support for classroom teachers to a withdrawal model, when not supported by an outside consultant.

A further aspect of support in training is the provision of appropriate teaching procedures that are known to have benefit for targeted students and which are applicable to regular classrooms. It is not sufficient merely to identify theoretical positions and to elaborate these in academic study. Rather, a partnership must be entered into with the teachers themselves. This partnership involves the provision of procedures identified in the research and clarified in practice from the university staff teaching on the programme. The teachers can provide commentary on their own practical applications as they did in the second project reported in this thesis. Modelling and developing such a teaching approach is an essential element of a programme for resource teachers.

In addition to the methods of professional development noted here and in the three stepping-stone projects, the three themes of the RTLB professional development programme upon which the writer had some influence were those of a collaborative consultative model, an inclusive philosophy and an educational/ecological approach to assessment and intervention. These aspects of the programme are elaborated in other chapters.

## **CHAPTER EIGHT:**

### **COLLABORATIVE CONSULTATION**

In this and the subsequent chapter examining ecological issues, the context of the work of a consultant is important. In the three stepping-stones toward the RTLB training, and that training programme, the target group is teachers in regular classes working with students who are a mix of successful and less successful learners. In particular, the role of a special education consultant is to support teachers and students. The target students are the least successful 30% of the school population excluding those with greater than moderate behaviour and learning needs, for whom other support services exist. This is an important caveat, as will become clear in the discussion of the supporting literature for consultants and an eco-behavioural model of practice. Much of that literature focuses upon low incidence disabilities that are not the domain of the consultants' work reported in this thesis.

#### **SKILLS FOR CONSULTATION**

For at least the last 25 years, researchers have been identifying the skills consulting teachers need and the training issues involved (Conoley & Conoley, 1982; Dettmer, Thurston, & Kyck, 1993; Erchul & Martens, 1997b; Fine, Grantham, & Wright, 1979; Friend, 1984; Friend & Cook, 1996). Critical skills include problem identification and elaboration, hypothesis setting and data based intervention. As Bergan pointed out (Bergan & Tombari, 1976) if a psychologist as a consultant could identify a problem, the probability was that the problem could be addressed. Obviously if problem definition is not properly conducted, a satisfactory outcome is in doubt. This may remain an important issue for consultants to schools. Certainly, the emphasis upon problem definition is an important one. Problem solving models of consultation appear to be both effective and more likely to develop self-sustaining skills among classroom teachers (Deno, 1995; Greenwood, Carta, Arreaga-Mayer, & Rager, 1991). This is a process that requires data based decision-making. An associated skill is that of

understanding and shaping the interaction patterns that determine how problems are viewed (Gable, Friend, Laycock, & Hendrickson, 1990; Hughes, Erchul, Yoon, Jackson, & Henington, 1997). The movement toward a focused interaction between a consultant and a teacher, in which problem definition is sought, pursued via data and managed via intervention is not without its problems, not so much as a methodology but in the sense that it can be mishandled (Gresham, 1991). There can also be a lack of appreciation of the importance of this aspect of consulting (Erchul & Schulte, 1996). The approach taken to classroom teachers is important. As McKee and Witt (1990) point out, “The social and political issues center around school psychologists entering the domain of the teacher and presuming to have the right and the knowledge to target instructional variables as appropriate subject matter for assessment and/or intervention” (p. 821). In this thesis, the consultant is the author and an invited visitor to classrooms. The lead teachers and resource teachers as consultants are professional colleagues of their teaching associates and thus may have a greater congruence or sensitivity to class teachers. Nevertheless, the caution offered by McKee and Witt remains valid.

The way in which consultation is practised will depend upon how it is defined (Kurpius & Fuqua, 1993) and then operationalized. This is a critical point for this thesis. The work that contributes to the RTLB programme has been based on a model of the consultant as a practitioner of an ecological/educational model working as a co-worker with expertise, not working in an “expert model.” Much of the literature on which practitioners base their assumptions and practice springs from an expert model. Such terms as “treatment integrity” are resonant with expert advice and whether or not the advice is taken. Wickstrom et al (1998) in a study which considered both collaborative and prescriptive consultation report that teachers implemented plans only 4% of the time. However, the targeted behaviours improved despite the low level of implementation. Kratochwill, Bergan, Sheridan and Elliot (1998) report a study by Peck, Killen and Baumgart in which consultants supported teachers as they identified strategies or assisted the teachers to develop strategies. The result was increased teacher confidence in implementing instructional strategies with concomitant improvements in targeted student behaviours. However, it is clear that in the present state of knowledge, we

do not know enough about how effective different consulting interactions might be, both on the consultee (the teacher) and the students.

The use of problem solving teams in schools has tended to focus upon special education, typically as pre referral (Aksamit & Rankin, 1993; Fuchs et al., 1990; Graden, Casey, & Bonstrom, 1985). While reviewing the problem solving models available, and suggesting an alternative approach, Pugach and Johnson (1988) appear still to have maintained a distinction between special and regular education. They saw pre-referral consultation as a responsibility of special education, allowing special education to “focus its resources on students with identifiable handicapping conditions” (p. 225). A similar position is taken by Fuchs et al. (1990). Within the context of the New Zealand education system, such an approach has rapidly become less viable. The movement toward inclusion and the recognition that too many students were failing to achieve brought a demand to identify the barriers to learning which were inhibiting these students. Increasingly, the teaching-learning process was coming under scrutiny as a barrier to student success. What is more, the New Zealand experience with support staff in regular schools, aimed at assisting teachers to work with low achieving students, had not been particularly successful.

The opportunity to improve learning for all students and to do so within a conceptual model of inclusion is not advanced by a process that maintains the separation of special from regular education. During the 1980s and into the 1990s, a number of researchers were questioning the notion of support for less successful learners through existing special education models. The Draft Review of Special Education (Department of Education, 1987) had made this point clearly. As principal writer of the review the writer was able to advocate strongly for the inclusion of special education within regular education. Bravi who worked with my department in the mid 1980s (Bravi, 1986, 1988a 1998b; Bravi & Freeze, 1987) had argued this position for some years.

The operationalization of consulting in this thesis has sprung from the notion that the consultant and the teacher should develop a problem solving approach as a “team” effort drawing upon the skills of each other. The contextualization of the

problem solving activity is within the domain of classroom ecology and the analysis of all that implies – student, peers, teacher and task issues. Gutkin (1993) asserts that behavioural and ecological approaches are entirely compatible and that the consultant is an advocate for an examination of environmental variables of the classroom. As an aside, this approach to ecological assessment has been advocated for some time (Mour, 1977). This issue is taken up in more detail in the chapter on ecological assessment.

The recognition of teachers as colleagues, and respect for their skills should be a given. If the level of these skills is found to be contributing antecedents or setting events for problematic behaviour, the role of the consultant is to work with the teacher as Witt and Martens (1988) suggest, “to help them become better monitors of their own behavior and to notice the relationship such behavior has to the behavior of students” (p. 221). Where teachers are skilled, then as Witt and Martens point out, “interventions [are] refinements of what teachers are supposed to do and have always done rather than foreign appendages to the classroom which do not belong there” (p. 224).

What has not been investigated so fully is the role and skill of the consultee teacher in a consulting process. My colleague, Charlotte Thomson, has argued for some time that this consultee role may be just as important as that of the consultant, a point also noted by others (Erchul & Martens, 1997c; Zins, 1993).

The skills required of a consultant have been discussed at length in the literature. There appears to be some disagreement among teachers and consultants about what the essential skills may be. For example, Idol and West (1987) list nine skills required of collaborative consultants. These include knowledge of theories and models of consultation, knowledge of the research on consultation, systems change skills and skills of staff development. On the other hand, West and Cannon (1988) used a Delphi approach to gauge expert views on the necessary skills for consultants. While interactive consultation and problem solving skills (included in the nine) were rated highly, knowledge of theory, research and systems were not. Staff development skills were only moderately regarded. While personal skills have strong support (Fine et al., 1979; Horton & Brown, 1990),

reassurance to teachers of their worth by consultants appears to be helpful in effecting change (Kruger, 1997).

In the Two Schools Project (Brown, 1992), reported earlier in this thesis, a decision was made that the consultant should demonstrate three qualities:

- able to deliver a service that is consistent with the demands of effective teacher development;
- have advanced knowledge of teaching and learning strategies and be skilful in sharing that knowledge; and
- able to demonstrate how content of the programme could have relevance and validity within the school's own system (i.e. able to operationalize teaching-learning strategies in different contexts) .

### **A MODEL FOR DELIVERY**

The intention in this project was to deliver the service through a collaborative consultation model in which the consultant would be “a systems oriented adviser” (p.11). This model was taken from the work of Idol, Paolucci-Whitcomb and Nevin (1986) who conceptualized the service as “an interactive process that enables teams of people with diverse expertise to generate creative solutions to mutually defined problems” (cited in Brown, 1992, p.11). Idol and her colleagues applied the model in an indirect approach dealing primarily with individual students. In the Two Schools Project, an effort was made to apply the model to schools, departments and individual teachers dealing with whole classes. This approach is favoured by Witt and Martens (1988) who place value upon self-sustaining behaviours resulting from the collaborative interaction. The model was a mix of collaborative consultation in its more commonly used sense (e.g., Bergan & Kratochwill, 1990; Erchul & Martens, 1997a; Friend & Cook, 1996; Idol & Paolucci-Whitcomb, 1987; Pugach & Johnson, 1988) and peer coaching (Costa & Garmston, 1994; Garmston, 1987). The variation on peer coaching set out by Neubert and Bratton (1987) offers one way in which a consultant can work with teachers in their classrooms. This was regarded as important in gaining the confidence of teachers and demonstrating credibility. One major difference between peer coaching and collaborative consultation, however, is probably the

mix of social power available to the experienced consultant (Martin, 1978). In contrast to Martin's position, Erchul and Raven (1997) argue that all the six elements of social power first noted by French and Raven (cited in Erchul & Raven, 1997) are available to the psychologist consultant. It is unlikely that the peer coach has this range of influence, particularly coercive influence and, in most cases, expert influence. However, it is a moot point whether coercive influence is a benefit to a collaborative consultant.

There is evidence to show that decisions made in consultation may not be maintained in the absence of support, either for individual procedures (often called treatment integrity) (Gresham, 1989; Noell, Witt, Gilbertson, Ranier, & Friedland, 1997), or for staff development (Isher, Johnson, & Johnson, 1998). However, Kratochwill, Bergan, Sheridan and Elliot (1998) suggest there is some doubt about this. In 1991 it was clear that the participating teachers in the Two Schools project would be unlikely to persevere with programmes unless they were supported both in teams and in their own classrooms. The details of this approach are set out the chapter on the Two Schools Project.

To illustrate the point, it is worth noting briefly the three elements of the Two Schools consultation approach. The use of regular, cross-department meetings involving all the participating teachers was intended to maintain group cohesion. The seminars requested by the teachers resulted from their determination to gain a better understanding of the details of interventions they were willing to adopt. Finally, the meetings individual teachers requested involved pre-classroom briefings, classroom observations and engagement with the class (team teaching) and post-class debriefings. This process was intended to maintain a "team" model with the consultant as a participant expert rather than an expert per se. The teachers brought an equal expertise in their participation as curriculum experts.

The lessons learned in the Two Schools Project were taken into the second project, the Effective Schools project. These included:

- the importance of providing seminar work to establish the central concepts of the practices to be adopted;

- mentoring the teachers in their own classrooms to ensure the integrity of the generalization of the concepts and skills in practice;
- modeling the methods whereby teachers' colleagues in the school could be engaged with the skills;
- continued briefing and debriefing to focus upon the agreed practices, encourage reflection during the lesson, and provide corrective feedback; and
- providing team meetings to enhance group cohesion and ensure communication among the team of teachers drawn from schools in the district.

It is reassuring to note that in 1999, Elmore and Burney (cited in Fullan and Mascal, 2000) listed the following as the characteristics of successful professional development:

- focusing on concrete classroom applications of general ideas;
- exposing teachers to actual practice rather than prescriptions;
- providing opportunities for group support and collaboration; and
- involving deliberate evaluation and feedback by skilled practitioners (p.35).

A conceptual understanding of change is an important element in recruiting teacher support for reform (Elmore, 1992). This point was certainly recognized in developing the RTLB training. In the Teaching for Effective Learning Project, the lead teachers were asked to suggest questions which might be asked of their principals, and of themselves at the conclusion of the programme. The questions they suggested for the principals reflected concern for support and resources for the continuation of the programme. Two of the nine questions suggested concerned how well the principals' group understood the programme.

Of the 23 questions teachers posed for themselves, one third focused upon continuance of the programme and how it could be managed. Five of the teachers' suggestions focused upon positive benefits of the course and four on support for their role. These four responses, together with the replies to the actual questionnaire, suggested that while there was great enthusiasm for the training, the

lead teachers were not entirely sure they could continue without further support. Other responses suggested the lead teachers, while having gained in skill and confidence, were still seeking further training.

It seems entirely likely that for RTLB to succeed in the long term, the level of confidence and the strength of the training would need to be significantly higher than that which could be offered to the lead teachers in the Teaching for Effective Learning Project. A need for precise and in-depth conceptual understanding of role and purpose within a new paradigm was clearly signaled by these results. Furthermore, the definition of consultation for the RTLB training was going to be a determining feature of how they would practice.

## **CHAPTER NINE:**

### **ECOLOGICAL PERSPECTIVES**

Historically, measures taken of those who are failing to achieve in school, or at risk of failure have historically been psychometric (e.g. Walsh, 1977; Olssen, 1988; Stanovich, 1991). When students are identified as in need of assessment, the traditional approach has been to seek the support of an educational psychologist or other practitioner with skills in psychometric assessment.

The inevitable result of such an approach was to identify the source of failure as a deficit in the student relative to other students represented in test “norms.” Measures typically include an intellectual assessment, some second order measures of neuropsychological functioning such as sensory motor integration, and achievement levels. The history of this approach is set out in Chapter One in this thesis.

Teaching is an interactive process. To understand why students fail it is necessary to investigate individual needs within the ecology of the classroom. For a truly ecological analysis to occur, the teacher would have to be a willing partner. When interventions are planned and conducted without the full involvement of the teacher, the likelihood of their support is diminished.

It is here that a problem arises; the context of the classroom includes the teacher and the way she has arranged the teaching-learning process. While it is well recognized that behaviour is a function of the environment, analysis of the environment will almost certainly intrude into the teacher’s professional domain. As pointed out earlier in this thesis, as a system, schools have not recognized the flaw in the assumption that school organization and thus what happens in the classroom is rational and failure is pathological (Skrtic, 1995).

As Baez (1989) points out the move toward an ecological approach to classroom interactions has not been a simple one. The need to move past a deficit model and toward an ecological one took time. In a number of different ways, not all of them directly identified as ecological but at least identifying a fit with actual classroom practice, researchers and practitioners have sought to find effective assessment methods (Ashman & Conway, 1993; Bulgren & Knackendoffel, 1986; Davis & Burton, 1991; Guidubaldi, Perry, & Walker, 1989; Haney & Cavallaro, 1996; Heron & Heward, 1988; Knutson & Shinn, 1991; Ysseldyke & Marston, 1990). DeSouza and Sivewright (1993) have shown how ecological evaluations can reveal much about what actually happens in the classroom when the focus is upon processes occurring, rather than on the deficits of individual students. Others (e.g. Field & Hill, 1988; Greenwood, Carta, & Atwater, 1991; Reschly, 1996) have discussed ecological methods in evaluating programmes and school systems. Gutkin (1993) has identified the approach in a consultation model as eco-behavioural, urging the recognition of the association between learning and behavioural concerns, with both having a systemic causation. The fundamental issue is that ecological assessment is necessary because teaching and learning are interactive. In the three cornered connection identified by Ysseldyke and Christenson (1987) all three elements – teacher, student and task - demand our attention.

The most comprehensive approach to ecological assessment in the classroom has been that of Ysseldyke and Christenson (The Instructional Environment System (version two) or TIES II, 1993). These authors have identified twelve of the most commonly reported components of effective teaching and learning to emerge from the school improvement and reform literature. They have then demonstrated how, through systematic evaluation in the classroom, it is possible to identify critical interactions between the instructional environment, teacher behaviour, task requirements and student characteristics that impact upon student learning. This has important implications for our practice in linking an ecological orientation to working with teachers, and extending that work through to collaborative intervention.

The use of an eco-behavioural approach in working with teachers who experience difficulty with the teaching-learning process has been promised. Greenwood, Carta and Atwater (1991) define eco-behavioural analysis: “Where behavior analysis has traditionally focused on experimental analysis of behavior, ecobehavioral analysis adds the ability of conducting naturalistic analysis of behavior that reveal the situational variable whose manipulation may most likely lead to actual behavior changes” (p. 73). While a behavioural functional analysis changes the focus from reliance on a traditional psychometric approach and its deficit connotations, it does not, by itself, offer a complete analysis of the ecology of the classroom. As Gutkin (1993) puts it “consultation interactions that focus solely on proximal stimuli functionally related to children’s classroom behaviors will often miss the mark and lead to little or no real change” (p. 96). By this, one might assume that the level of teacher involvement might be low, or the generalization to other classroom problems might be problematic. In other words, one must ask where the agency of the teacher is, in a pure behavioural functional analysis. The danger is that functional analysis serves well the research community, the status quo of school organization or the comfort zone of psychologists who are trained in this model and unaware of the fundamentals of effective teaching and learning.

Furthermore, even when labeled as ecological, interventions may still represent a search for pathology. An example of this concern can be found in a study by Lentz and Shapiro (1986). These authors describe classroom variables as “an academic ecology ... where the child is the defining factor for interpreting the relation of environmental variables” (p. 347). Lentz and Shapiro identify teacher interviews, direct observation and inspection of academic products as fundamental tools of analysis. Interestingly, the focus of the observation and intervention in this study is solely upon the student’s responding behaviour. A more sophisticated approach is required.

More fine grain case studies than that of Lentz and Shapiro (1986) have a similar focus (e.g. Noell, VanDerHeyden, Gatti & Whitmarsh, 2001). Other studies, for example that of Roberts, Marshall, Nelson and Albers (2001) add curriculum based assessment as their means of identifying antecedent conditions leading to

off task behaviours; in other words, a failure of instructional match. The antecedent elements of teacher behaviour in these kinds of assessments appear to be confined to their immediate, proximal behaviours, however. Such issues as planning and grouping (particularly cooperative learning groups) seem to be less visible.

Munk and Repp (1995) have examined this issue in some detail, distinguishing between proximal, single stimulus events and complex, often temporally distant events that make up a collection of contextual conditions termed setting events. Their review supports the notion that by altering setting events one can influence behaviour in a nonaversive manner, altering instructional variables to affect student behaviour. In an earlier critique of case centred, clinical consultation procedures Witt and Martens (1988) identify the complex setting events of the classroom. These authors point out that traditionally the child has been the focus of the problem solving exercise. In this study they argue for a wider focus upon the instructional components of the classroom environment. They go on to identify the work of Ysseldyke and Christenson (1987) as a key marker for a systematic ecological review of the classroom.

## **THE INFLUENCES OF INCLUSION**

Inclusion of all students in regular classrooms heightens the need to consider ways in which interventions can be seen to have a more general effect. This is particularly so when special education consultants are dealing with a wider and more diverse range of students – as many as 30% of the school population if one includes all students who are struggling with the curriculum. A relatively early study by Greenwood, Delquadri, Stanley, Terry and Hall (1985) demonstrated two elements of this issue. First, a wider range of environmental variables (instructional arrangements) was reviewed as setting events. Second, the hypotheses generated from the review were applicable in a regular classroom by class teachers. In a later summary of this work Greenwood, Carta and Atwater (1991) suggest that, “in the absence of ecobehavioral comparison...an empirical link between low-achievement and instruction and its effects on students’ academic behavior could not have been made’ (p. 67). In the same review (p. 68)

the authors describe a study where class wide peer tutoring was developed as an appropriate (and successful) intervention. The interesting finding in this study was the difference in the behaviour of the teacher and the students associated with the intervention. In other words, by changing the stimulus conditions in a “macro” sense, whole class peer tutoring, a concomitant change in student behaviour (more time engaged in academic responding, less time looking at the teacher or for materials and less time inappropriately competing) was observed, and for the teacher, greater monitoring. All of these changes were made in terms of stimulus control to elicit behaviour already in the repertoire, rather than in terms of consequences.

Despite frequent statements that a broader ecological viewpoint should be considered, there remains a deficit perspective in much of the literature. We find examples published as recently as 2001 with terms such as compliance, treatment, and treatment integrity. It is not unlikely that the notion of experts directing teachers to deal with problem children is still a dominant one despite terms such as collaborative problem solving appearing in close juxtaposition. It is worth noting that a change from (say) psychoanalytic or psychopathological models, toward a behavioural or learning model did not necessarily represent a change in the expert behaviour of consultants. An expert clinical form of practice remains for many practitioners with the teacher regarded as an agent to be directed or managed in carrying out a set of recommendations, or continuing a treatment process once the consultant has moved on to the next case.

The acceptability to teachers of intervention is important. In an analysis of pre-referral intervention, Gresham (1989) listed six elements of the intervention as issues of acceptability to teachers. These were (a) the complexity of the treatment, (b) the time required, (c) material resources required, (d) the number of treatment agents required, (e) the perceived and actual effectiveness of treatment, and (f) the motivation of the treatment agents. Some of these issues are taken up by others; Reimers, Wacker and Koepl (1987) and Elliott (1988) note the time involved as a factor in the willingness of teachers to engage with a consultant. Wickstrom, Jones, La Fleur and Witt (1998) speaking about treatment integrity

scores note that "integrity estimates decreased as the level of methodological rigor increased" (p. 151). These results are supported by Robins and Gutkin (1994).

For a consultant to be effective in an ecological approach she must be familiar with the common practices in classrooms. The RTLB should be able to identify those elements of classroom practice that the teacher is able to adjust or modify. What is more, the RTLB as a consultant should be aware of the ways in which teachers could alter their behaviour in a manner consistent with empirical data on effective teaching. For the RTLB to do this, she must both be familiar with the literature on effective teaching and be able to work in cooperation with the class teacher to put such practices in place.

The main thrust of the work described in this thesis is to reframe problems with students, as educational problems. In other words, it is not problem students or even problem teachers who are the focus of attention but problem situations – a “no blame” approach. Once this is established, the overriding concern must be the necessity of identifying problem solutions that are credible in regular classrooms.

To assess the problem clearly requires an examination of a range of variables, as Ysseldyke and Christenson (1987) point out. For example, in a recent study Roberts (1995) suggests: “teacher interviews, direct observations, permanent products, curriculum based measurement probes, and the evaluation of interventions/treatment procedures” (p. 679). In this brief but comprehensive analysis not only does Roberts clearly identify elements of teacher behaviour such as expectations and pacing of instruction, but also group size and composition. This student-student interaction element, identified in such approaches as cooperative learning (Johnson & Johnson, 1984), peer tutoring (Medcalf, 1989) and paired writing (Cameron & Walker, 1994) though powerful stimulus conditions, is less often mentioned in the functional analysis literature.

One final point deserves attention. In most studies of functional analysis there is a presumption that students are motivated to gain attention or escape aversive stimuli. A functional analysis of teacher behaviour would probably reveal the same response classes. Teachers refer students who are troubled or troublesome.

They may find the interactions with the consultant helpful (reinforcing) or aversive (eliciting escape behaviour). The extent to which a class teacher will engage in a careful and rigorous eco-behavioural analysis of a reframed “problem” will probably depend upon the level of inclusion they feel in the process of the problem analysis and the ways in which their cooperation is engaged. This is particularly so when an educational model is in place; it is then not just the student’s behaviour that is the focus of attention. Vollmer and Northup (1996) assert, “the goal of functional analysis is to experimentally identify operant reinforcement contingencies maintaining problem behaviour in order to more directly prescribe effective behavioral interventions” (p. 76). Do they mean teacher behaviours? Of course not; but an eco-behavioural analysis must surely include all the variables in the ecology, including those of the teacher. This is an issue that appears to be still unresolved in the literature.

Jackson and Panyan (2002) make the point that functional analysis and functional behavioural assessment are often (mistakenly) used interchangeably. These authors suggest that functional analysis is too time and energy consuming for classroom teachers. In any event they claim it has no benefit over functional behavioural assessment. This latter procedure is defined as involving data gathering “using any number of strategies to generate hypotheses about variables that reliably predict and maintain problem behavior. Educators within natural settings can readily apply functional behavioral assessment” (p. 172). Jackson and Panyan go on to caution educators of the risks of using functional behavioural assessment within a narrow base of activity. In other words, assessment should be carried out in a broad ecological sense including the student’s classroom, playground and home.

If functional analysis proper is to be used, it seems it should be reserved for occasions when intensive, more intrusive interventions are called for. For the purpose of this discussion, functional analysis is defined as the precise, systematic presentation and withdrawal of variables to find the relationship between the variables and a student’s behaviour. In the day-to-day work of the RTLB it is unlikely that a functional analysis is appropriate. Given that Group Special Education is available for support in cases of more severe behavioral difficulty, it

is more appropriate for this service to assist the teacher with a careful functional analysis.

The issue raised here is that the teacher has sought collegial assistance and should receive it in a fashion that balances the power of the two professionals in a productive interaction. This is more likely to occur when a functional behavioural assessment is carried out. Taking a broad perspective, ensuring the macro ecology of the classroom is considered and adopting a preventative "no blame" approach seems more likely to be successful. Only then will the teacher and the consultant be able to engage in a truly reflective approach to the dynamic interactions of the classroom.

## **TIES II**

Let us now move the focus of this discussion back to TIES II. There is considerable congruence between the components of TIES II and the New Zealand Curriculum Framework (1993). This makes TIES II a particularly useful tool in the New Zealand context for analyzing the needs and opportunities for groups of students or individual students who are struggling with their learning.

Like any other imported educational practice, TIES II and the way it is used need to be adapted to the ways in which practitioners work in different cultures. As TIES II was taken up in New Zealand, it became apparent that it was not immediately transferable to our classrooms and the ways in which teachers and consultants worked. Despite its excellent background and obvious utility in principle, several issues of practice emerged.

Using the original foundation research behind the TIES model (Ysseldyke, Christenson & Thurlow, 1988) and the original scale (Ysseldyke & Christenson, 1987) a teaching programme was developed to illustrate the ten (later to become twelve) classroom components of TIES. Since its potential was so great and its likely impact on New Zealand classrooms promised to be so important, a start was made on developing a series of seminars for that part of the Two Schools project

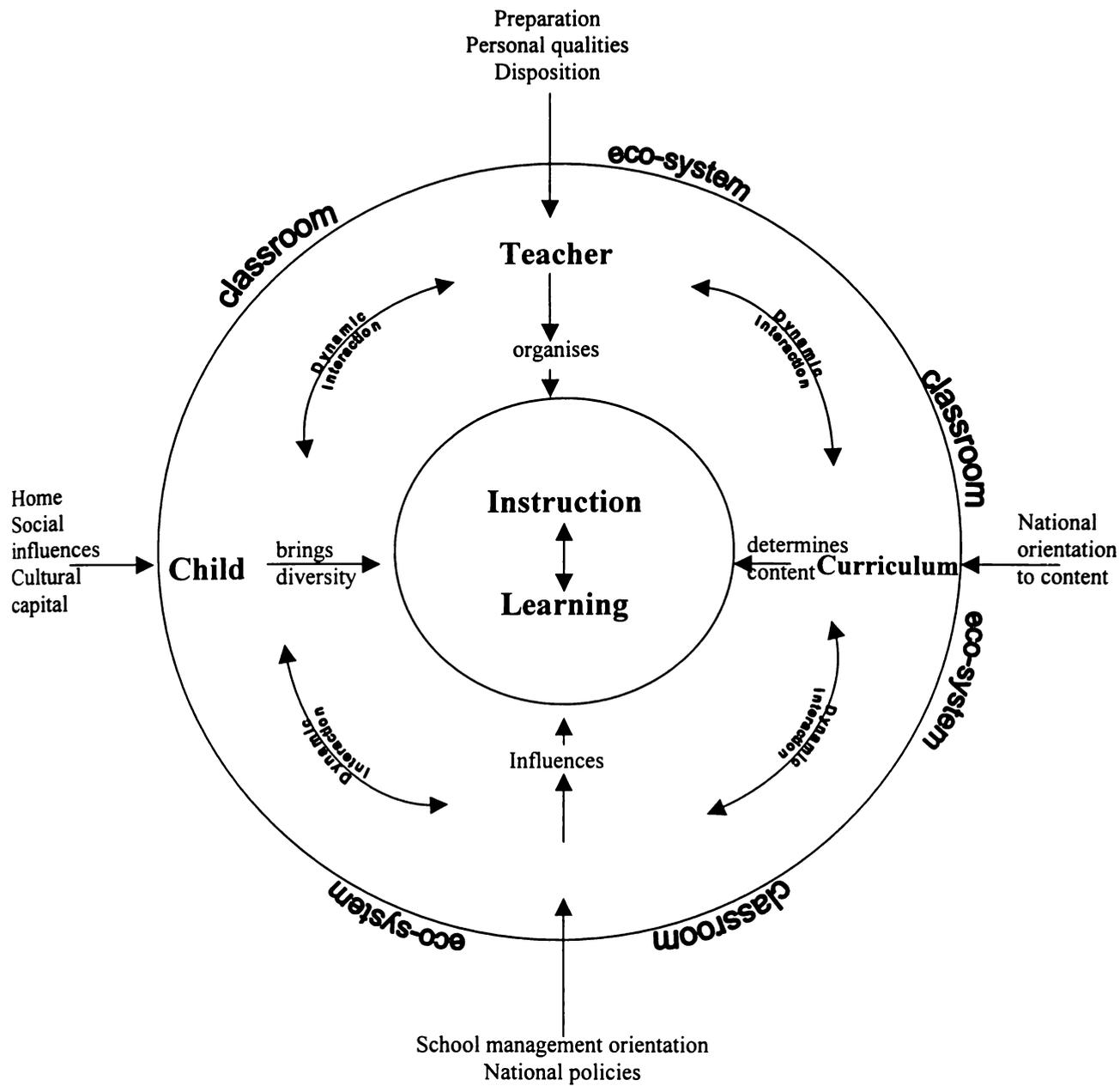
and the more formal training programme required by the Teaching for Effective Learning Project.

During the Two Schools study, the ten foundation components of TIES were introduced during group discussion and team meetings. These discussions were broadened in the Teaching for Effective Learning Project into formal seminars to ensure the lead teachers in that programme were thoroughly familiar with the information. In the chapter on collaborative consultation, I have included information and observation material that include guidelines on the application of the components of TIES in supporting teachers in their classrooms.

There was a developmental element in this work. The application of TIES and TIES II by consultants might be supported by the teachers' own knowledge of the foundations of the scheme. The lead teachers in the second stepping stone project reported in this thesis were never intended to use TIES II as it is set out in the manual. Rather, it was intended to capitalize on the value of TIES as a background to effective teaching. Thus, the lead teachers studied the components of TIES. They were encouraged to pass on this knowledge to their colleagues and were shown how to explain the components and look for their presence when visiting colleagues in their classrooms.

To assist understanding of an ecological viewpoint, a model was developed from the analysis of influences upon the teachers in the Teaching for Effective Learning Project. This was elaborated further for the RTLB to ensure that, as far as possible, they could achieve a conceptual grasp of an ecological approach. This model is set out in diagrammatic form below.

FIGURE 19. THE CLASSROOM ECOSYSTEM



There was a clear need to develop this work further in the RTLB training. TIES II was a required text for the coursework and the use of TIES II was required in assignments. The further development of the use of the TIES concept was encouraged and a number of RTLB contributed to ways of including it in their assessment work with class teachers. An essential element of this work, as it had been with the lead teachers in the Teaching for Effective Learning Project, was the skills of collaborative consultation.

The intention was to highlight the ecological aspect of working with students, together with the fundamental issues of the teaching-learning process. In order to do this, the components were analyzed for their utility within New Zealand classrooms and teachers were invited to participate in the evaluation of TIES. Two formats for observation were developed. The first comprised an observation format which was further developed in the Teaching for Effective Learning Project and, finally, by some RTLB working with the writer on the task. The final version of this format is set out below. It enables a consultant or fellow teacher trained in its use to work with a colleague to establish an ecological perspective of the class in action.

TIES OBSERVATION FORM ONE

SCRATCH PAD

<p><b>INSTRUCTIONAL MATCH</b>                  Instruction is matched to the identified needs of the student                  Clear, measurable goals are set                  Success rates are checked regularly                  Look For - can they do it                  - what's happening</p>		<p>Check Further?</p>
<p><b>TEACHER EXPECTATION</b>                  Students are active and involved                  Realistic but high academic standards set                  Accountability for completion of work                  Look For - clear communication                  - efforts to complete quality work</p>		
<p><b>TEACHING PRESENTATION</b>                  Climate is positive, friendly, supportive                  Time is used productively                  Routines in place and observed                  Students are self managing                  Look for - cooperative atmosphere, high student participation</p>		
<p><b>CLASSROOM ENVIRONMENT</b>                  Advance organisers, well developed lessons                  Teacher cues, prompts and models                  Students show understanding or reteaching done                  Active teaching with variety of materials and strategies                  Look for - active, responsive, enthusiastic delivery</p>		
<p><b>COGNITIVE EMPHASIS</b>                  Students understand tasks                  Thinking skills / strategies embedded in the work                  Students demonstrate use of strategies                  Look for - "wait time", explicit strategy use</p>		
<p><b>MOTIVATIONAL STRATEGIES</b>                  teacher enthusiastic/encouraging/positive interactions                  routines vary/materials interesting &amp; age appropriate                  process skills emphasised &amp; valued                  reinforcement effective/conferencing &amp; feedback exist                  students self monitor/believe can achieve their goals                  student involvement in planning                  progress monitored/students accountable                  Look for - examples of intrinsic motivation</p>		



Throughout our discussion on the use of TIES-II both in New Zealand and in the United States it has been clear that while there has always been the expectation that the components of TIES will be used, the approach has not quite fitted the New Zealand teaching context. Attempts to organize the use of TIES components have been facilitated by the way in which the material has been set out in the seminars and observation formats.

The use of TIES-II as a means of establishing an environmental analysis within an ecological context is important. To some extent, this theme is not consistent with an emphasis upon observing and collecting data on one student's status in the classroom. Working in an ecological/educational paradigm which is the driving theme of the of RTLB programme suggests that TIES can be used first as a whole class analysis instrument to place the student within the context of the classroom in a more comprehensive way. For this reason, the components of TIES need to be considered in a broad context.

TIES is constructed with two major intentions. The first is the examination of the classroom and the teaching components. The second is the individual response pattern of an identified student within the classroom. As we move more toward a classroom, rather than an individual student based model for teacher support, there is an opportunity to approach the use of TIES first from the broader, classroom base and only later, when the need is clear and apparent, from the perspective of the individual student. This is particularly so when the approach to special education is based on an inclusive model where the classroom remains the appropriate and effective assessment and learning context for all students.

The following three-point model was proposed for the use of TIES:

### **Investigative Phase**

TIES would be used first as a broad based analysis of classroom interaction patterns following a collaborative consultation between the classroom teacher and the resource teacher. From this should emerge a hypothesis testing approach that emanates from the investigative data obtained.

Following a model of collaborative problem analysis, it is possible that the process would yield a satisfactory outcome at this level.

### **Exploration in Depth Phase**

Where it becomes obvious that the analysis and interventions that emerge from the activities in the investigative phase above are insufficient to meet the needs of the class or an individual student, a second level of analysis and intervention would apply. In this case, it would be clear that certain elements of TIES might be more appropriately used in an effort to focus in greater depth on those aspects of the classroom teaching and learning components that are identified as crucial for a group of students or an individual student.

In this case a more specific analysis and a more intrusive intervention programme might be negotiated on the basis of further collaborative consultation between the teacher and the RTLB. Emerging from such a decision, a satisfactory resolution of the educational issues identified might be found.

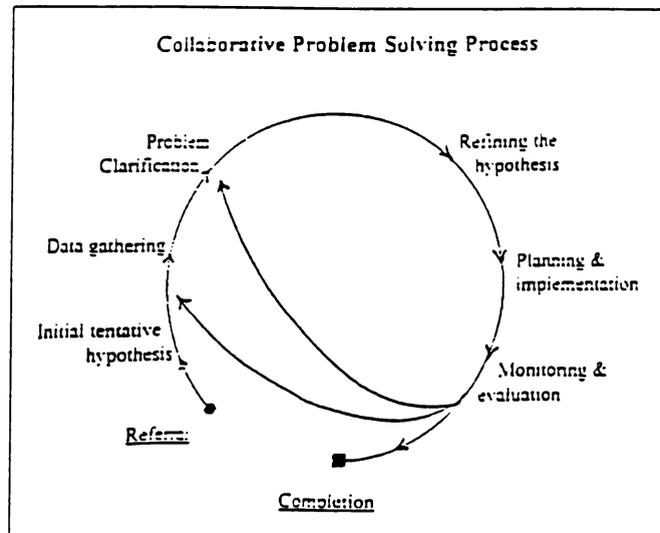
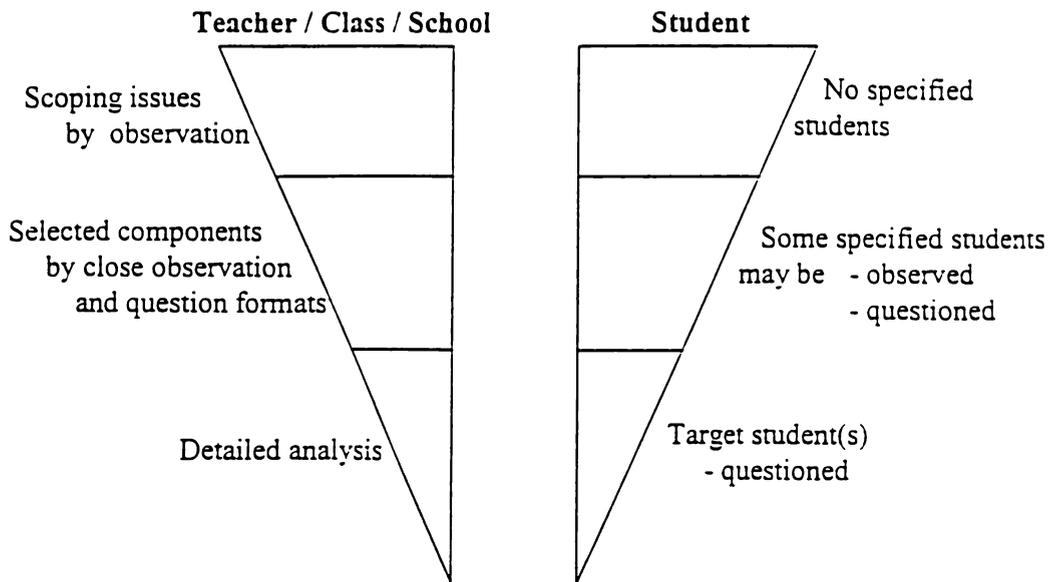
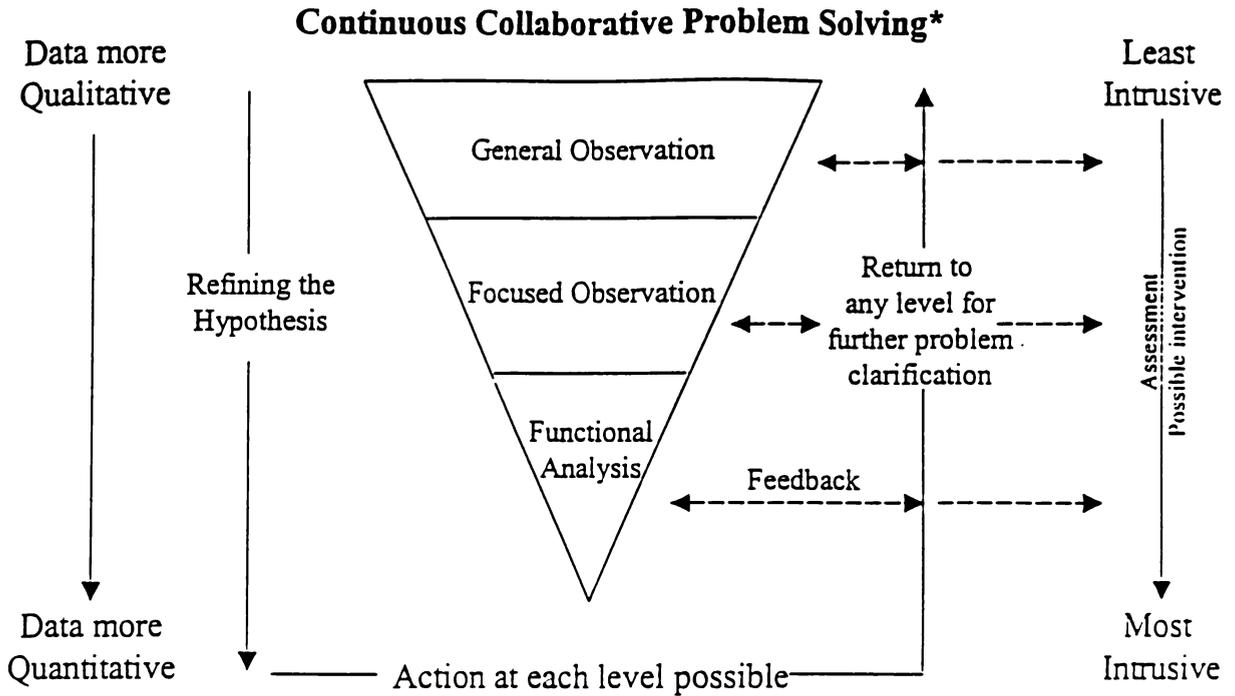
### **Functional Analysis Phase**

At this level, it would have been clear that even more detailed and focused analysis and intervention would be required. A functional analysis might be appropriate with a more intrusive and targeted intervention employed. While there is a continuing discussion on the use of functional analysis (e.g. Kirk, 1999; Roberts, 1995), it is important that it be viewed as part of the ongoing hypothesis testing process in which RTLB might be engaged. The level at which it can be practised will need further investigation, however, as noted earlier in this chapter.

This approach is represented in the following diagram.

FIGURE 21. PROPOSED MODEL FOR USE OF TIES

# PROPOSED MODEL FOR USE OF TIES



There are certain pre-suppositions that are required of such an approach. The first is that practitioners working as resource staff with classroom teachers would have a thorough knowledge and understanding of the components of TIES and the literature which supports them. It would also be important that the observational data gathering strategies employed be appropriate to the task.

RTLB using this approach would have an understanding of the two aspects of TIES that constitute the application of the method, i.e. an investigative analysis of the classroom and of the individual student's interactions within the classroom. Practitioners would be skilled in collaborative consultation and would have skills in problem analysis, hypothesis testing and intervention approaches.

Other conditions for effective use were judged to be:

1. the record forms and schedules must be credible in the hands of both the RTLB and the teacher. Teachers must be able to recognize the educational value of the questions and, when considering the issues of observation and analysis, must be able to recognize their application to daily classroom practice. This is a result of careful collaborative consultation;
2. the record forms and schedules must be accessible to the RTLB in particular and the teacher must recognize their utility both for themselves and for a consultant working in their classroom;
3. the approach must be manageable both in terms of time taken to conduct observations and interviews, and in the time gap between such observations, interviews and the interpretation of the data in a collaborative meeting; and
4. finally, the methodology must be seen to have a purpose and direction, leading the teacher to understand and further explore elements of their practice that would lead to more effective strategies for teaching and learning.

It can be seen from the above diagrams that a particular approach to TIES as a form of ecological assessment can provide data to inform (a) teaching and classroom issues, and (b) those having to do with the individual student or group of students. It should be noted that the movement down the inverted triangle is in a direction that moves from:

- qualitative to quantitative emphasis;
- less to more focused observation and interviewing approaches; and
- less to more intensive interventions into the classroom programme.

A further element of this approach to ecological assessment is the notion that it is hypothesis testing in nature. As one moves down the inverted triangle, hypotheses are being made, data are being collected and interventions considered. This problem solving cycle is represented below.

In order to assist RTLB, a video was produced (Brown & Thomson, 2001b) to illustrate how TIES could be used and how a number of RTLB in training were beginning to develop formats that facilitated the inclusion of teachers within a problem solving cycle. Examples of pre-observation information sheets developed by Chris Broere and Tracy Weir, and a method to activate discussion and focus teachers on priority classroom issues, by Vonnie Wilson-Jones (all published with permission) are shown below to illustrate this point.

FIGURE 22. COLLABORATIVE CONSULTATION RTLB GUIDELINE FORMS  
1. T-CHART (DEVELOPED BY VONNIE WILSON-JONES)

## *Focus Task*

Think of a typical classroom situation that concerns you in relation to

\_\_\_\_\_.

Write a brief description of the situation.

*eg. After the teacher models the storywriting activity, the children are working independently at their tables.*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **What do you see?**

*Eg J. spends several minutes finding a pencil*  
*J. gets up to talk to friends*

### **What do you hear?**

J. shouts out to another child for a rubber  
J. talking about playtime

FIGURE 23. COLLABORATIVE CONSULTATION RTLB GUIDELINE FORMS  
 2. FOCUS TASK (DEVELOPED BY VONNIE WILSON-JONES)

*Use the following questions to help you think about the situation you described.*

<p><b>Planning</b></p> <p>What skills does _____ have to complete the task?</p> <p>What do you expect from _____?</p>	<p><b>Management</b></p> <p>What rules / routines are relevant to this part of the programme?</p> <p>How would you describe the working environment at this time?</p>
<p><b>Teaching</b></p> <p>What are you doing at this time?</p> <p>What strategies do you use in this situation to maintain enjoyment and interest of the student/s?</p>	<p><b>Monitoring/Evaluation</b></p> <p>How is progress monitored for this part of the programme?</p> <p>What strategies do you use to ensure students stay on task?</p> <p>What changes do you make to this part of the programme for students having difficulty?</p>

***Teacher's Pre/Post Lesson Record Sheet: Overview***

After completing the focus task and careful discussion the RTLB and teacher should have identified one of the four areas in which to focus their observations and problem analysis.

The following record sheets are designed to help the teacher think about their classroom practice before the lesson as well as reflecting after the lesson.

Some questions can be considered before the lesson while some can only be addressed after the lesson is complete.

FIGURE 25. COLLABORATIVE CONSULTATION RTLB GUIDELINE FORMS

3. RECORD SHEET INSTRUCTIONS AND RECORD SHEET - CONTINUED (DEVELOPED BY VONNIE WILSON-JONES)

<b><i>Teacher's Pre/Post Lesson Record Sheet</i></b>	
<b>Planning</b>	
<b>Instructional Match</b>	<b>Your Comments</b>
What goals/objectives are set to meet individual needs?	
What tasks are set to meet individual needs?	
What skills are needed to complete the task? How do these fit with the student?	
What is expected from the student's performance on this task?	
What is considered to be success for the student?	
How much of the task does the student complete in the time allocated?	
What teaching strategies best suit the needs of the student? eg co-operative learning, grouping etc.	
<b>Teacher Expectations</b>	<b>Your Comments</b>
How are lesson goals/objectives communicated to the student?	
What opportunities are available to the student to be actively involved in the lesson?	
What are the consequences for <ul style="list-style-type: none"> <li>• Completing all the task?</li> <li>• Some of the task?</li> <li>• Very little of the task?</li> <li>• None of the task?</li> </ul>	

FIGURE 26. COLLABORATIVE CONSULTATION RTLB GUIDELINE FORMS  
 4. ACTION PLAN (DEVELOPED BY VONNIE WILSON-JONES)

<b><i>Teacher/RTLB Action Plan Sheet</i></b>		
<b>Planning</b>		
Instructional Match	1. What's Happening Now	3. Strategies
Teacher Expectations	1. What's Happening Now	3. Strategies
2. Goal For....		

**Ecological Assessment Information for Teachers**

An ecological assessment considers the needs of a learner primarily within their learning environment, recognising the impact that this environment has upon learning outcomes for the student. It is based upon components outlined in the system developed in *TIES II: The Instructional Environment System - II*. By James Ysseldyke and Sandra Christenson.

These are the components assessed and an indication of factors within each component that are considered:

1. <b>Instructional Match</b>	The influence of factors such as student, class and task characteristics upon student performance.
2. <b>Teacher Expectations</b>	Student understanding of and response to teacher expectations.
3. <b>Classroom Environment</b>	Knowledge of class routines and procedures and the ability to follow them. The type of class climate that exists and the impact that this has upon the student.
4. <b>Instructional .... Presentation</b>	Understanding of the lesson content and the instructions or directions given.
5. <b>Cognitive ..... Emphasis</b>	Opportunities to employ and develop appropriate thinking skills, such as memorising, reasoning, concluding and evaluating.
6. <b>Motivational .... Strategies</b>	Types of motivation effective in encouraging student involvement in the learning task.
7. <b>Relevant Practice</b>	Opportunities to practise relevant tasks successfully in a variety of ways with the support of appropriate feedback.
8. <b>Informed Feedback</b>	Feedback about student performance that is able to effect an improvement in achievement.
9. <b>Academic Engaged Time</b>	Opportunities to engage in learning tasks, to respond and participate in the lesson and demonstrate understanding.
10. <b>Adaptive Instruction</b>	Instructional modifications and alternative methods that are appropriate to increase level of student success.
11. <b>Progress ..... Evaluation</b>	Methods for monitoring and assessing progress, providing informative feedback to the student and setting appropriate goals.
12. <b>Student Understanding</b>	The student's understanding of the task requirements, their level of success and ability to work at the task independently.

BEHAVIOUR / LEARNING INTERVENTION PLAN FOR \_\_\_\_\_ YEAR: \_\_\_\_\_ DATE: \_\_\_\_\_ REVIEW: \_\_\_\_\_

CURRICULUM STRAND:  
 RELATED CURRICULUM ACHIEVEMENT OBJECTIVES:

COMPONENT	CURRENT SITUATION	ADAPTATIONS	IMPLEMENTATION	GOAL
<p><b>Academic Engaged Time</b></p> <p>Instructional modifications and alternative methods that are appropriate to increase level of student success.</p>				
<p><b>Monitoring and Evaluation</b></p>				

To summarize, the three stepping-stone projects that contribute to the RTLB training all emphasize ecological assessment. Assessment of academic and social skills have been addressed through contextual sampling. There has been a strong advocacy for the use of structured observation within a methodology of collaborative consultation. A problem solving cycle has been emphasized, whereby peer coaches, lead teachers and RTLB working in collaborative mode with their colleagues in classrooms have sought jointly to assess and analyze teaching and learning issues of concern to the class teacher.

A number of methods of analysis have been suggested to the teachers in the three stepping-stone projects. Each has now become a central focus in the RTLB training. They are not exhaustive but contribute positively to those methods of assessment and analysis teachers frequently use when working with their students. Some of these are illustrated in the chapter on collaborative consultation. In particular, the use of the components of TIES II has been emphasized both as a basis of ecological analysis and as foundation knowledge for class teacher and consultant alike.

With respect to this latter aspect of TIES II, my colleague Elizabeth Manins has worked with the writer to develop an analysis of the congruence of TIES II with the New Zealand curriculum. Elizabeth Manins has extended this analysis to include the guidelines established for effective teaching by the Education Review Office (ERO) which is the official audit agency for education in New Zealand, and the professional standards being developed for primary school teachers. This analysis is set out in Figure 29 below.

FIGURE 29. CONGRUENCE BETWEEN TIES-II COMPONENTS, NEW ZEALAND CURRICULUM FRAMEWORK (NZCF ) PRINCIPLES AND RECOMMENDED PRACTICES, TEACHER, INTERIM PROFESSIONAL STANDARDS FOR PRIMARY SCHOOL TEACHERS AND FOCUS OF EDUCATION REVIEW OFFICE (ERO) TEACHER OBSERVATION

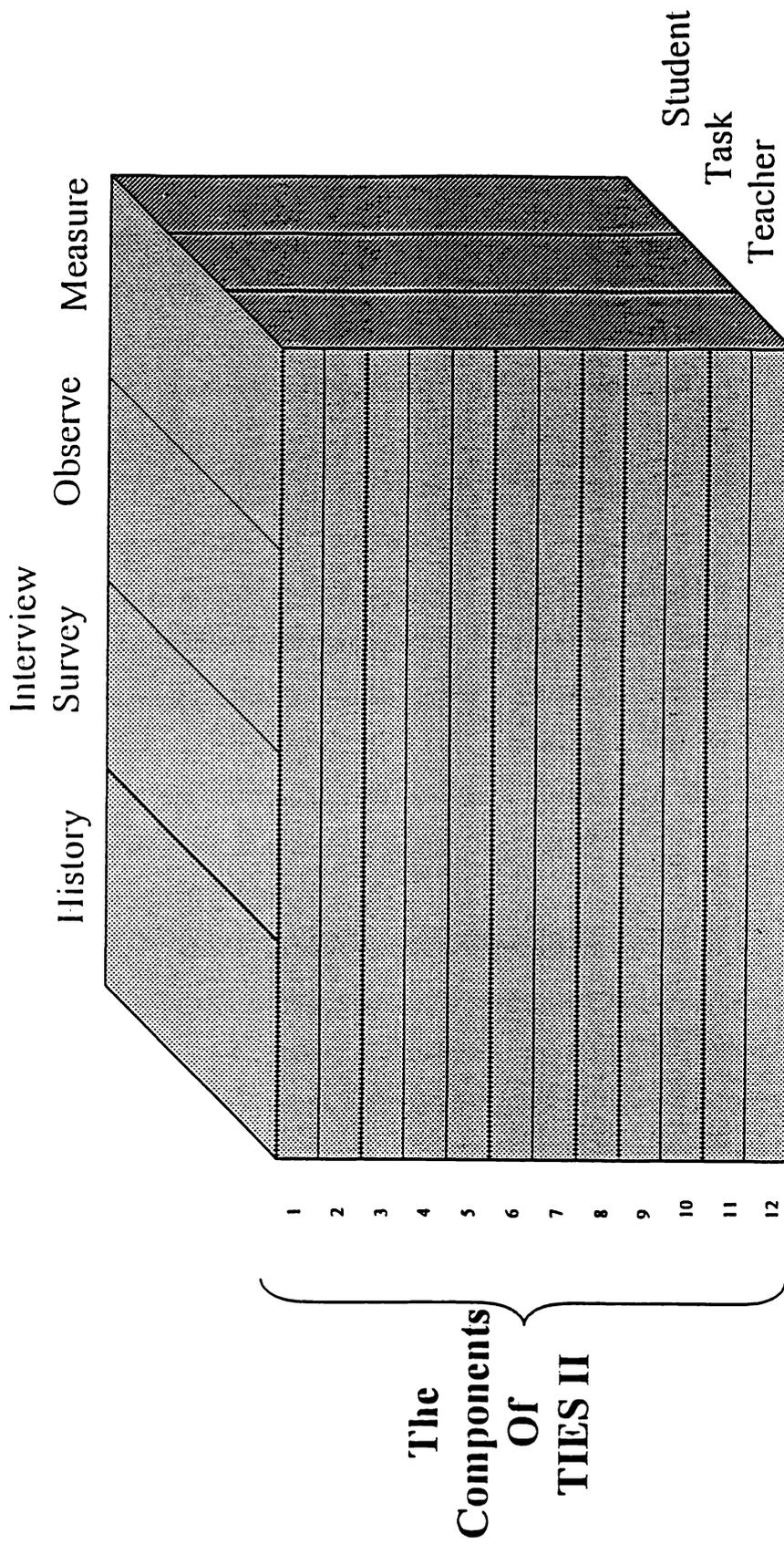
TIES-II components	NZFC principles and recommendations	Interim Professional Standards for Primary School Teachers	ERO observation components
1 Instructional match <ul style="list-style-type: none"> <li>diagnosis</li> <li>instructional prescription</li> </ul>	<ul style="list-style-type: none"> <li>Principle 2: " clearly defines achievement objectives against which student's progress can be measured ."</li> <li>"Ensures learning progresses coherently throughout schooling".</li> <li>recommended use of diagnostic tools ,to develop specific learning objectives.</li> </ul>	<ul style="list-style-type: none"> <li>"demonstrate a high level of knowledge of relevant curriculum, and of current learning and assessment theory"</li> <li>recognise and support diversity amongst individuals and groups"</li> </ul>	<ul style="list-style-type: none"> <li>"the teacher has selected appropriate learning objectives for the teacher"</li> <li>"there is sufficient challenge, resources and help available to make success possible"</li> </ul>
2 Teacher expectations	<ul style="list-style-type: none"> <li>"teacher's expectations" are significant learning factors.</li> </ul>	<ul style="list-style-type: none"> <li>"establish high expectations that value and promote learning"</li> </ul>	<ul style="list-style-type: none"> <li>"the teacher expects each student to succeed in reaching the learning objectives for the lesson"</li> <li>"teacher expectations are not adversely influenced by preconceptions about the gender, ethnicity or social background of students"</li> </ul>
3 Classroom environment <ul style="list-style-type: none"> <li>management</li> <li>productive time use</li> <li>class climate</li> </ul>	<ul style="list-style-type: none"> <li>"honesty, reliability, respect for others, respect for the law, tolerance, fairness, caring or compassion), non sexism and non racism" are values specified to be reinforced in the school curriculum.</li> <li>Essential Skills: Self management and competitive skills AND Social and Cooperative skills foster these values and skills across the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>"manage student behaviour positively"</li> <li>"establish good relationships with students and respect their individual needs and cultural backgrounds"</li> <li>organise a safe physical environment"</li> <li>"create an environment of respect and understanding"</li> <li>"provide and maintain a purposeful working atmosphere"</li> </ul>	<ul style="list-style-type: none"> <li>purposeful atmosphere</li> <li>"there is purposeful atmosphere based on a climate of work in progress, known behaviour standards, respect, encouragement and humour"</li> </ul>
4 Instructional Presentation <ul style="list-style-type: none"> <li>lesson development</li> <li>clarity of directions</li> <li>checking for student understanding</li> </ul>	<ul style="list-style-type: none"> <li>emphasises importance of structuring and sequencing presentations, beginning with an overview, stating short term goals and providing "specific, explicit information, explanations and examples</li> <li>active participation by students in all learning experiences is advocated</li> </ul>	<ul style="list-style-type: none"> <li>"demonstrate a broad range of effective teaching techniques"</li> <li>"impart subject content effectively"</li> </ul>	<ul style="list-style-type: none"> <li>"the work is efficiently managed, eg packaged into manageable bites and logically sequenced"</li> <li>"all instruction is given efficiently eg within the time available and in respect of each student's individual learning pace"</li> </ul>
5 Cognitive emphasis	<ul style="list-style-type: none"> <li>Emphasises: the importance of making connections between different ideas, instructing students on use and selection of effective strategies, challenging students through problem-solving, explaining and listening</li> <li>Essential skills Problem-solving AND self-management and study skills emphasise metacognitive development</li> </ul>		<ul style="list-style-type: none"> <li>"students are encouraged to think, question and take intellectual risks"</li> <li>"students are encouraged to explain and are comfortable explaining the reasons behind their answers"</li> </ul>

TIES-II	NZCF	Professional Standards	ERO focus
6 Motivational strategies	<ul style="list-style-type: none"> <li>• Emphasis on student involvement, and choice in negotiating learning outcomes, content, activities and styles of learning within specific achievement objectives.</li> <li>• Focus on authentic learning and cooperative learning approaches.</li> </ul>	<ul style="list-style-type: none"> <li>• “engage students in learning”</li> <li>• “recognise and support diversity amongst individuals and groups”</li> </ul>	<ul style="list-style-type: none"> <li>• “constructive feedback from peers and teacher is readily given”</li> <li>• “to engage the students and develop knowledge and skills there are appropriate strategies, tasks, resources, spaces”</li> </ul>
7 Relevant practice <ul style="list-style-type: none"> <li>• practice opportunity</li> <li>• task relevance</li> <li>• instructional material</li> </ul>	<ul style="list-style-type: none"> <li>• A mixture of group work and individual tasks is advocated.</li> <li>• Authentic tasks where students solve real problems is promoted.</li> </ul>		<ul style="list-style-type: none"> <li>• “there are sufficient challenge, resources and help available to make success possible”</li> <li>• “to engage the students and develop knowledge and skills there are appropriate strategies, tasks, resources, spaces”</li> </ul>
8 Informed feedback <ul style="list-style-type: none"> <li>• feedback</li> <li>• corrective procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Specific, constructive feedback is advocated</li> <li>• Descriptive rather than evaluative feedback is recommended.</li> </ul>		<ul style="list-style-type: none"> <li>• “constructive feedback from peers and teacher is readily given”</li> <li>• “students know what they need to do to improve”</li> <li>• “mistakes are used constructively by both teachers and students as part of learning”.</li> </ul>
9 Academic engaged time <ul style="list-style-type: none"> <li>• student involvement</li> <li>• maintenance of student involvement</li> </ul>	<ul style="list-style-type: none"> <li>• a highly participatory style is advocated throughout curriculum documents</li> </ul>	<ul style="list-style-type: none"> <li>• “provide and maintain a purposeful working atmosphere”</li> </ul>	<ul style="list-style-type: none"> <li>• “there is a purposeful atmosphere based on a climate of work in progress”</li> </ul>
10 Adaptive instruction	<ul style="list-style-type: none"> <li>• Principle 3 promotes flexibility “to design programmes.. appropriate to the learning needs of ..students” (p.6)</li> <li>• Student assessment is used to modify teaching programmes</li> </ul>	<ul style="list-style-type: none"> <li>• “demonstrate flexibility and responsiveness”</li> </ul>	<ul style="list-style-type: none"> <li>• “instruction is given efficiently.. in respect of each students’ learning pace”</li> </ul>
11 Progress evaluation <ul style="list-style-type: none"> <li>• monitoring student progress</li> <li>• follow-up planning</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment information is used to provide feedback to students and identify the next learning steps</li> <li>• Diagnostic assessment is to be used to identify “learning strengths and weaknesses, measuring students’ progress against the defined achievement objectives, and reviewing the effectiveness of teaching programmes” ( p24).</li> </ul>		<ul style="list-style-type: none"> <li>•</li> </ul>
12 Student understanding	<ul style="list-style-type: none"> <li>• Advocates making learning objectives specific, by negotiating criteria and by closely monitoring student learning progress throughout instructional tasks</li> </ul>		<ul style="list-style-type: none"> <li>• “students know what they are going to do, how this fits into the bigger picture and how they can use this information”</li> </ul>

Developed by Elizabeth Manins and Don Brown

One approach to understanding the investigation exploration and analysis strategy using TIES II is a 3D model of assessment currently being developed for the RTLB programme by my colleague Elizabeth Jones and the writer. The model incorporated elements of TIES II. It uses typical assessment approaches for gathering historical data, interviewing and surveying, engaging in direct observation and using whatever measures of activity, social or academic progress which might be of interest. The model is set out below.

FIGURE 30. A CONCEPTUAL MODEL OF ECOLOGICAL ASSESSMENT USING TIES II



In conclusion, the almost universal referral of students to a consultant, with the expectation that the child would be assessed for deficits cannot be broken without a coherent and credible alternative model of assessment and intervention. Taking a purely behavioural approach in many ways merely exacerbates the situation since it continues to focus primarily upon the individual with the major focus almost always upon the simple A-B-C contingencies, a practice that fails completely to recognize the powerful antecedent elements occurring in the classroom. An eco-behavioural approach allows the consultant to broaden that focus to the general context, including the classroom environment, teacher and peer behaviour and the task. It still remains for the consultant to negotiate with the teacher just what variables within that broad context to investigate.

Such an approach must be both credible and feasible within the context of a busy classroom. The consultant is typically not an experimental psychologist. Nevertheless, the major effort should shift to a careful and thoughtful examination of all the stimulus conditions operating in the classroom, particularly the influence of those broad setting events which govern classroom behaviour, teacher behaviour and task requirements. If RTLB understand that high incidence behaviours of concern to teachers are often a product of teaching-learning interactions, then their use of such an approach is justified.

The components of TIES summarize what are generally agreed to be the major variables of the classroom environment. If a consultant can conceptualize these components as the most salient variables operating as antecedent and consequences in a learning context, there is likely to be a more thorough and truly ecological evaluation of the conditions surrounding a student or group of students. For such a procedure to be successful, however, the consultant (RTLB) must be able to engage with the class teacher in a careful analysis, based on an eco-behavioural model; for the solution will ultimately rest upon the teacher's understanding of the dynamic interaction of student learning and behaviour in the classroom and the teacher's willingness to engage in effective teaching strategies.

## **PART FOUR**

### **CONCLUSION**

#### **AN EMERGING MODEL FOR EDUCATIONAL CHANGE: RESOURCE TEACHERS: LEARNING AND BEHAVIOUR**

##### **AN EVOLUTION TOWARD INCLUSION**

The inclusion of all our children in the New Zealand education system has not been easy or uncontested. Those who would exclude some members of our society on the basis of ability and social class have challenged it. The last quarter century has seen a significant movement toward a transition to full inclusion. In Appendix A, this progress has been summarized in a concept diagram. The challenges over the 150 years of education in New Zealand have reflected the history of our society and the peoples from which our nation has sprung, both the indigenous people and the European settlers who arrived more than two centuries ago. The history of Western social systems in particular has been one of rationing of privilege and the exclusion of those whose difference causes discomfort, or demands resources not willingly given up. Thus we have seen our education system move painfully slowly to accept in an unqualified way, those who are disabled, have cultural values and practices which are not mainstream, are of low socio-economic status or even who struggle to learn.

This thesis has drawn together two major trends in education. The first is the gradual development of the regular education system from its inception as a stratified, rigid and unrelentingly elitist structure toward a more generous acceptance of difference and diversity. This story is by no means complete. The rigidity of the system remains, together with its unwillingness to accept change in

all but the smallest of incremental doses. The resolute determination in secondary schools to stay with the 55 minute period, the so called “egg crate” classroom structures, the continued dependence upon didactic “chalk and talk” presentations, the monotonous drilling of less academic students, the hierarchical and individualistic organizational structures for staffing and the almost fearful approach to managing a group of young adults with anything less than authoritarian regimentation remains a matter for concern.

On the positive side, we can see how some schools, many primary schools especially, have readily accepted students with disabilities or whose cultural background is different. Schools have increasingly recognized the rights of children to attend and the writer has personally experienced many instances of outstanding efforts made to ensure students are accepted with the school and its classrooms with an evenhanded willingness that deserves our admiration. This is a contrast to the recent experience of having students described as cabbages or “veggies.” The teachers who have accepted into their classrooms, students of diverse and often challenging qualities, stand, as a clear indication of what is possible.

### **A NEW APPROACH**

The introduction the SE2000 policy required a new approach. This would not be merely an adjustment of practice in special education but a focused and determined effort to provide the schools with a cadre of professionals knowledgeable and skilled in the issues and practices of inclusion. The Ministry of Education had a policy without a practice; it had a vision of a bold new move toward inclusion without a clear indication of how the policy was to be achieved. It became apparent that the RTLB would be the “front line” in effecting the Ministry’s policy intentions (Fancy, 1999). It rested with the consortium of universities drawn together as a cooperative team to put in place a professional development programme suited to the task. Rather than offer a training programme that reflected previous practice, an entirely new course of study had to be constructed. The writer’s involvement drew for guidance upon prior experience

as a national leader in special education and his experience with the stepping-stone project set out in this thesis.

A number of issues covered in this thesis have proved significant in the final development of the professional development programme agreed by the consortium of universities. These are set out below. For a more complete discussion of how the programme was developed, see Appendix B.

### **AN UNDERSTANDING OF ROLE**

For RTLB to succeed in the long term as promoters of inclusive education, the level of confidence and the strength of the training would need to ensure they had a precise and in-depth conceptual understanding of role and purpose within a new paradigm. In the Two Schools Project, the writer as consultant had a clearly enunciated role. The clarification of a consultant role for the lead teachers in the Teaching for Effective Learning project took some time but that role appears to have been achieved. A comment to emerge from the focus groups, and one supported in many of the comments in the questionnaires, suggests the lead teachers did achieve a conceptual understanding of their role as consultants, no matter their concerns about how to carry it out. They appeared to understand the purpose and importance of reforming teaching practice to meet the demands of the new curricula and the growing diversity of students in our schools. If consultants are to be successful in playing their part in bringing about reform of the teaching-learning process, this may be the most important lesson to emerge from this project. Certainly it played a major part in planning the RTLB programme.

A major challenge for the RTLB however was the transformation of their role while working within a deficit paradigm. While the lead teachers in the Teaching for Effective Learning Project grasped the conceptual issue of their role, they did so within the context of support from volunteers in their schools. In other words, there was no particular demand for them to find ways to work with colleagues whose expectation was the removal of the student. Furthermore, while the lead teachers understood the role, they were less sure of its application. To some extent this was a function of the dual role of class teacher and lead teacher. Another

reason for this uncertainty appears to have been the challenge of developing a collegial consulting methodology. However, for the RTLB the task was considerably more difficult. Not only had they to learn the skills of collaborative consultation, they also needed to learn how to overcome resistance to inclusion (as seen in preference for removal for teaching or to another site) and how to deal with school managers who may not always be well prepared for the new paradigm.

Part of the RTLB role is to assist school leaders with systems change to meet the requirements of the SE200 policy. Systems issues were present but not dominant in the two stepping-stones, the Two Schools Project and the Teaching for Effective Learning project. Introducing systems issues within a receptive setting is a challenging but manageable task. In the Two Schools Project the management and teachers were willing and enthusiastic participants. The principals' group was committed to the project and encouraged participating staff. The schools associated with the Teaching for Effective Learning Project again volunteered to participate though their motivations may have been more diverse; for some there was a focus upon professional development, others appeared to want to develop individual staff skills. However, for the RTLB, the views of school leaders would traverse an even wider range of expectations, from a strong desire to support their staff, to obtain collegial assistance and review their systems to a resistance to anything but a withdrawal or "pull out" solutions for individual students. The lessons learned from the stepping-stones would have to be augmented by a more general knowledge of schools and school systems, both theoretical and empirical. RTLB would have a more difficult task in establishing their role than did the lead teachers.

### **ADOPTING A PROBLEM SOLVING METHODOLOGY**

Problem solving operates within a conceptual framework and via an interactional process. In this case the framework was ecological and the interactional process collaborative. Collaborative problem solving is a demanding approach in the context of busy classrooms where teachers seek rapid if not immediate solutions. The new role requires the involvement of the teacher in a joint effort to identify

the issues surrounding her concerns about students' learning and behaviour and to go about a systematic analysis of the nature of the problem. From this analysis an appropriate intervention is expected to emerge.

#### **WORKING TO AN EDUCATIONAL MODEL**

Intervention to solve classroom-based problems that have been clearly identified is a critical issue. An educational model is different from a counseling or social work model. The RTLB programme has emphasized contextualised ecological assessments that lead to data based educational decision-making. In an educational culture that is not heavily reliant upon such an approach, it is necessary to ensure professional development is rigorous and focused. For this reason, major sections of the courses developed for the RTLB emphasized inclusive approaches to learning and teaching.

#### **EFFECTIVE TEACHING AND LEARNING FOR INCLUSIVE PRACTICE**

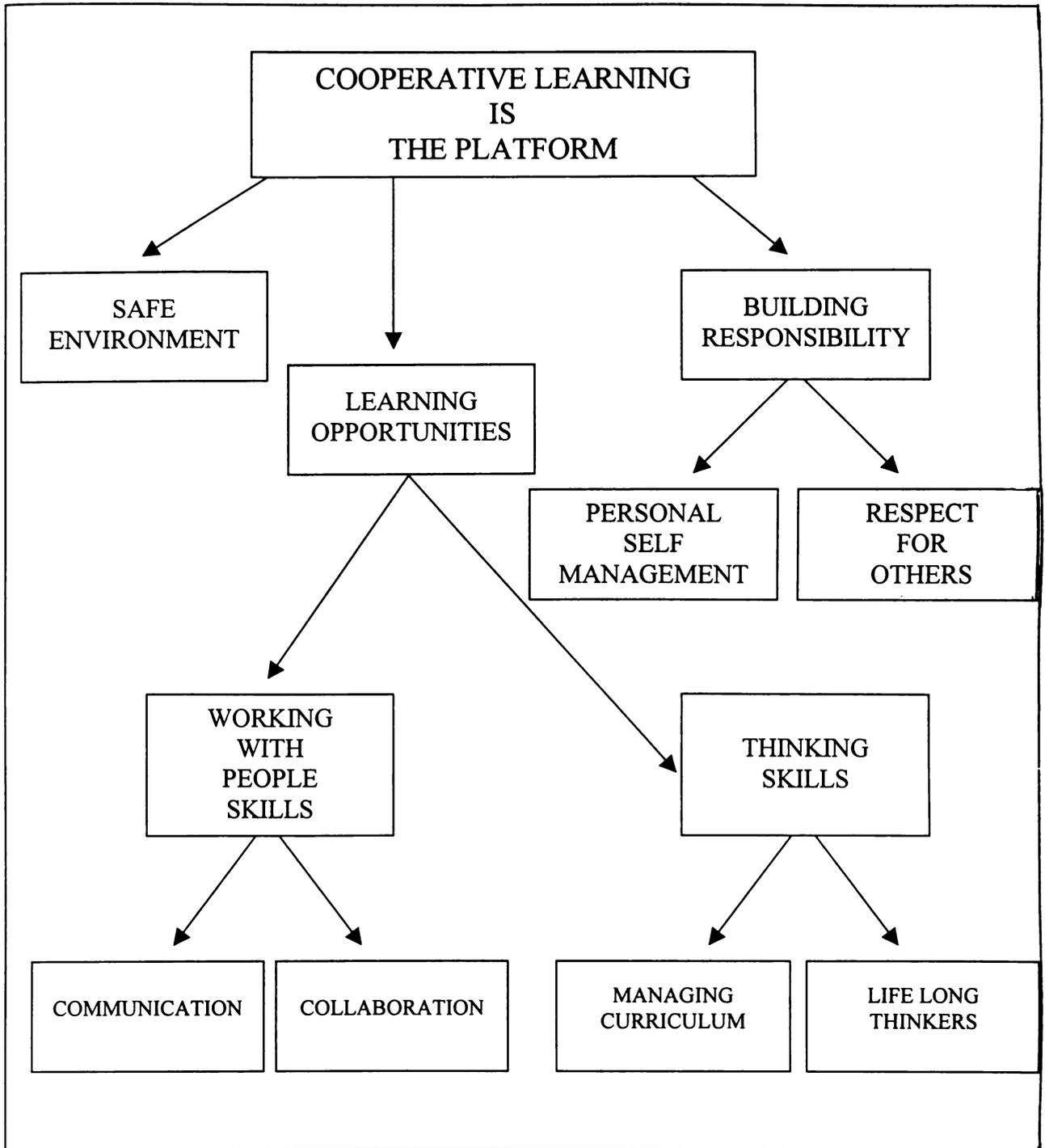
From the first stepping stone project it was apparent that effective teaching would be a fundamental component of inclusion. Without skilled, flexible and willing teachers, able to make the necessary adaptations to their curriculum presentation and classroom management, less successful students would continue to struggle.

That teachers and trainee teachers can master a range of successful teaching strategies has been demonstrated in this thesis. The major strategies have been cooperative learning, strategic teaching approaches and an understanding of the components of effective teaching and learning. All of these issues are noted in detail earlier in this thesis.

It was agreed that cooperative learning would be the universal format for delivery of the course in two senses. First, cooperative learning was used for seminar delivery following an adaptation of the work of Johnson, Johnson and Smith (1991). Secondly, a wide range of cooperative learning methods, structures and activities that could be used in classrooms were modeled and taught throughout the seminar presentations and workshops. RTLB were required to complete an assignment on the use of cooperative learning and expected to show evidence of

its use in their portfolio that constituted one quarter of their assignment work. The figure below represents the ways in which cooperative learning was conceptualized for the RTLB.

FIGURE 31. THE WAYS IN WHICH COOPERATIVE LEARNING WAS CONCEPTUALIZED FOR THE RTL



Teaching strategically, like cooperative learning is a learned behaviour within the capacity of novice as well as experienced teachers. In all three stepping stones, teachers and trainees demonstrated how they could master the application of teaching-learning processes based upon the work of a wide range of contributors to the field both conceptually (e.g., Gagne, 1970; Glaser, 1994) and in specific approaches e.g., paired writing (Cameron & Walker, 1994); learning strategies (Deshler & Lenz, 1989); thinking skills using a range of organizers (Jones, Pierce & Hunter 1988-89; Fogarty & Bellanca, 1987, 1991); and more complex enquiry methods (Cohen, 1994; De Bono, 1985; Harris & Pressley, (1991); group interaction and maintenance skills and focused cooperative activities (Graves & Graves, 1990; Kagan, 1992); generic cooperative skills (Johnson, Johnson & Holubec, 1994); advance organizers (Lenz, Alley, & Schumaker, 1987); and peer tutoring (Medcalf, 1989).

Earlier in this thesis attention was drawn to the complexity of teaching. To repeat that point, Howey and Zimpher (1996) suggest there are three salient factors in the developmental pattern of teachers:

First, good teaching remains more complex than the understanding many teachers have of it; second, learning to teach is in turn more complex than many of those who would educate teachers perceive it to be; and third, there appear to be cognitive stages or developmental patterns that characterize many prospective teachers and in many instances constrain their learning to teach, let alone their ability to teach others. (p. 482)

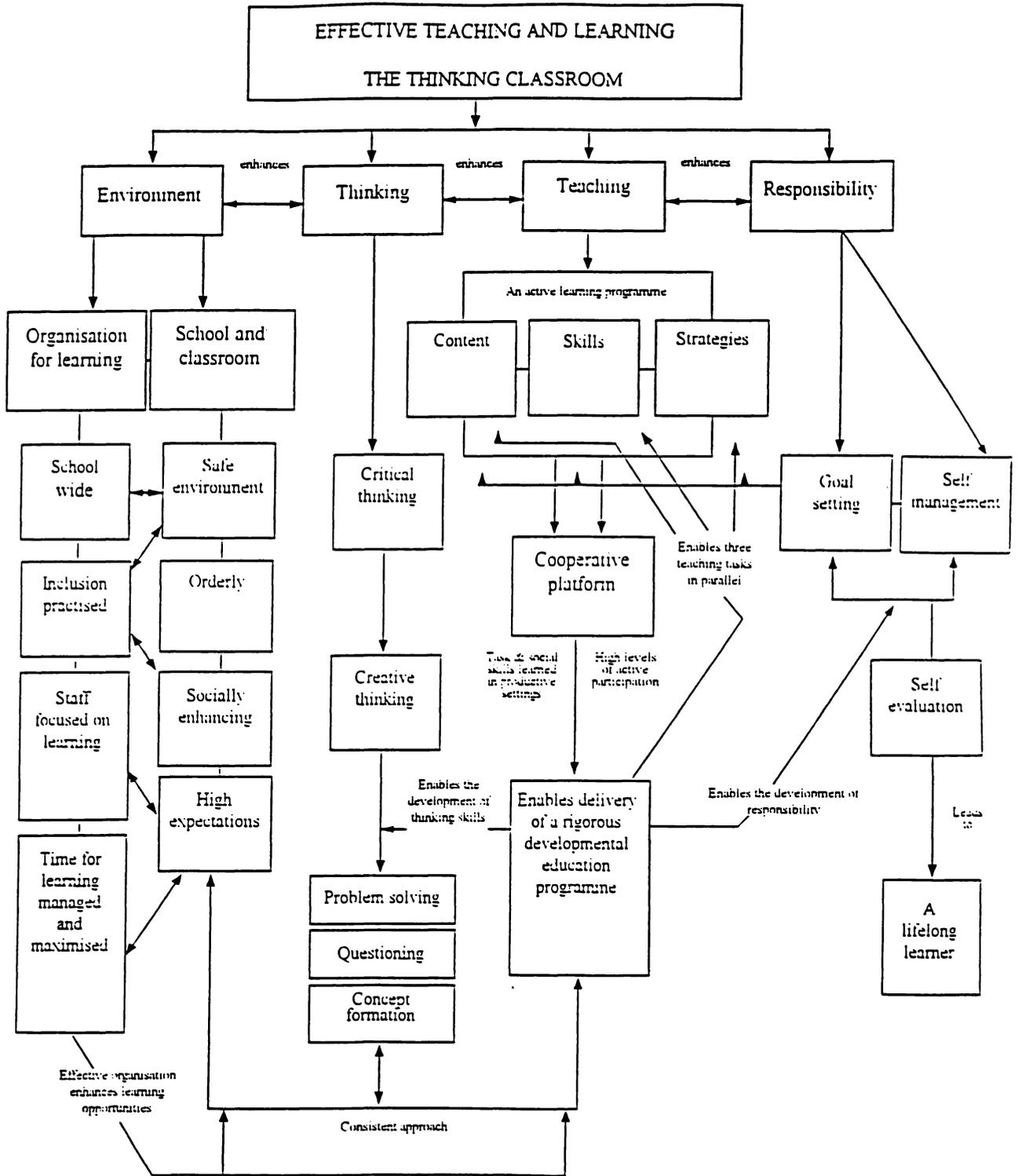
While this conclusion was considered in terms of the innovative pre-service programme discussed in the report of that stepping-stone, the point must be given serious consideration in the context of the RTLB programme. Changing teacher behaviour is a complex matter that requires more than seminar and workshop activities. As I shall note later in this chapter, some compensatory action had to be taken to fill the mentoring gap in the programme. Great care had to be taken to model effective practices. The use of assignments requiring authentic practice

reports and the development of portfolios to have the RTLB “author” their own learning were two strategies adopted.

It is important that RTLB can work collaboratively with teachers and school leaders to introduce effective teaching techniques to regular classrooms. To do so in a collaborative and collegial fashion requires a skilful blend of sharing expertise with respect for the teacher’s existing teaching style. The training programme had to ensure this sensitive match was modeled and transmitted to the RTLB in a way that they too felt themselves to be part of the collaborative exercise.

Figure 32 below is taken from seminar material prepared for the Teaching for Effective Learning Project and illustrates how the lead teachers were encouraged to conceptualize their work with colleagues. It also demonstrates the writer’s contribution to ways in which the part of the RTLB training concerned with effective teaching and learning was organized.

FIGURE 32. A CONCEPT PLAN OF EFFECTIVE TEACHING AND LEARNING



The influence of the work of Ysseldyke and Christenson (1993) has been a major factor in the way the RTLB programme has developed. TIES II, a required text was a significant factor in focusing the attention of RTLB on an ecological approach. Discussion of the ways in which TIES could be used in New Zealand was a further feature of the programme. The contribution of many RTLB, some small and others quite noteworthy, helped the entire cohort to gain a greater ownership of the instrument and its implications for classroom practice. It was a major contributor to the necessary change in orientation from a focus on the deficits in the student to measuring the instructional environment.

At the same time that the practice of RTLB was being shaped in the direction of ecological assessment, problem solving and effective teaching practices, there was an equal demand to ensure they understood the importance of collaborative consultation (or as it developed, of collaborative problem solving). The development of what was described as collaborative collegial consultation or CCC evolved during the RTLB development phase as collaborative problem solving. The emphasis had change somewhat, from a form of peer coaching toward a more sophisticated approach involving the RTLB in skilful interaction with classroom teachers who were not immediate colleagues. My colleague Charlotte Thomson guided this development.

#### **ADOPTING A SYSTEMS APPROACH**

In the Two Schools Project and the Teaching for Effective Learning Project it was clear that the broader ecology of the school has an effect upon teachers, even those who prefer to work in the isolation of their classrooms. Particularly at the secondary level, these stepping-stone projects demonstrated that a consultant must work within the system of a secondary school and across the sub-systems of the subject faculties. These goals have traditionally been thought of as difficult to achieve yet in both of the projects, they were accomplished. A further goal is influencing the systems to improve the learning environment for all students. In the stepping-stone projects this goal was achievable in some respects, mainly because the schools were enthusiastic participants.

For the RTLB both these goals would be likely to present challenges. It was important that a section of the training programme addressed this concern. Consequently, some of the methods (e.g. classroom demonstrations and exemplars from a range of subjects, the development of peer coaching and staff seminars) were included in the training programme.

A key finding of the Two Schools Project was the importance of the support of the “top three” the principals’ group in the schools. This finding was borne out in the next step the Effective Teaching and Learning Project, including leaders in participating primary schools. As noted earlier, since it is evident from the research that schools can significantly influence student attitudes and academic outcomes (Mortimore and Sammons, 1987) professional development is likely to be more successful in schools where the organizational structure supports effective teaching (Fullan & Newton, 1989). The most challenging task facing RTLB would be influencing those principals who were not supportive of their role as agents of change within schools.

#### **CONSIDERATIONS FOR IMPROVEMENT**

While many of the lessons learned in the stepping-stone projects were incorporated in the planning and delivery of the RTLB programme, two issues stand out as important but which were not able to be included. The first of these has to do with the ongoing monitoring and mentoring of the people undergoing the professional development. In both the Two Schools Project and the Teaching for Effective Learning Project, high levels of congruence emerged between principals and teachers on the value of ongoing in-service training delivered in a combination of seminars and site visits. The positive responses with respect to teacher efficacy focus upon student needs and outcomes, improved teaching patterns, and personal benefit were noted. In the second stepping-stone, a number of teachers visited their colleagues’ schools and participated in joint presentations in neighbouring schools. As course directors we were able to support and coach the lead teachers in their preparation.

This level of collegial contact was not possible in the RTLB programme. Judging by the strong advocacy for this level of support found in the responses of principals and teachers in their responses to end of (stepping-stone) project evaluations, this might be an area for further development despite the large scale of the RTLB professional development programme. Certainly, the opportunity to follow students through in on-site support, as indeed was also possible in the Pre-Service Project, may have been a significant factor in their development.

The consortium team was aware of this gap and took two kinds of action to compensate for it. The first was to form a working relationship with the professional supervisors of the RTLB, psychologists in the Specialist Education Service. In this respect seminars that summarized the training programme were presented to the psychologists. The course assignments for the RTLB were explained to the psychologists and they were invited to attend all course-work meetings. In particular, supervising psychologists were asked to attend four of the RTLB training days that focused upon the development and production of a portfolio.

The second action taken was to develop all course requirements, oral reports, assignments and a major portfolio production around authentic professional tasks. The portfolio in particular was a year-long scaffolded production that required the RTLB to demonstrate through evidence, annotation and reflection that they had met all seven course outcomes.

Both the principals and the lead teachers were positive about the opportunity to incorporate the strategies and approaches to teaching into their school philosophy and practices. The lead teachers expressed some concerns about their own capacity to act as consultants within the school, and the capacity of their colleagues to maintain the changes they had begun. This concern was tempered somewhat by a more confident view of working with a smaller group of colleagues, rather than with a whole school. It seems that the lead teachers could find “like minds” within their school and felt more confident to work with them. One principal remarked “The model I think has its best chance of success in a big school where a large cell can be formed or within a school where it is a whole

department exercise.” Four of principals considered that only voluntary participation would be likely to work.

The impact across the schools varied in the reports of principals and lead teachers from significant to, in one case, minimal. The majority however were positive about what had been achieved and what was possible for the future. In some cases, the lead teachers reported having taken staff meetings and seminars with a wide range of colleagues, while others were less sure of themselves in these tasks. It seems likely that the impact within a school was a function of a combination of principal support (usually rated highly) lead teacher skill and confidence, and school culture. It is not possible to tease out these issues entirely but it seems likely that the qualities of the lead teacher played a part in the level to which they were able to recruit colleagues into the programme.

One area of interest is the support given to the lead teachers within their network group. A number of them visited their colleagues’ schools and participated in joint presentations in neighbouring schools were conducted on a number of occasions in one district. A considerable camaraderie built up within the network groups and in the two seminar groups. Indeed the “ownership’ of the programme might be judged in part by the comment made in the teacher questionnaire seeking advice on future programmes. In this response the “we” in the question: Are there any ways this course could be improved if we were to run it again – was turned around to imply the “we” meant the teachers themselves.

In the more challenging context in which RTLB have to work, the writer has noted, jointly with other colleagues (Thomson, Brown, Jones & Manins, 1999) the effect of introducing the SE2000 policy from a centralized Ministry of Education to a decentralized school system. The effect was to allow some thousands of school principals, close to 200 of who became managers of clusters of RTLB, to interpret the policy. Many appear to have done so in a fashion entirely congruent with the Ministry’s and the Government’s intentions. Others appear not to have done so. While the earlier appearance of a definitive guideline (Ministry of Education, 2001) may have established a clearer perception of what was intended for the role of RTLB, there remains the problem of reluctant or resistant

leadership. The effect of this lack of congruence with the training and the policy intention is likely to constitute a barrier to successful implementation of the policy in many schools.

### **LOOKING TO THE FUTURE**

There is a new vision for special education in New Zealand. The promise is for an integration of the two parallel paths of regular and special education into one inclusive system. It is an ambitious approach, particularly since there are very few students in New Zealand in residential schools for students with severe disabilities and there has been a steady reduction in the number of day special schools. Conceptualizing this vision has taken time and has been achieved, often in the face of significant opposition.

The greatest challenge to implementing the policy that has emerged from this shift in thinking, SE2000, is not the administrative arrangements but the integrity with which the educational practices that it demands are instituted. The paradigm shift that this vision engenders has not been fully recognized or accepted by all in education. As in any social science, differing or opposing paradigms slide against each other rather like tectonic plates (perhaps with a somewhat similar effect) as various views of education vie for more general acceptance. To be successful, the new vision must demonstrate within a reasonably short period (ten years has been offered for the completion of the transformation) that it can be a viable alternative to the traditional means of providing support for students with special teaching needs.

Earlier in this thesis there is a description of issues surrounding educational change. In particular Darling-Hammond's (1993,1995,1998) views about new policy implementation and the change process have been reviewed. The focus upon one aspect of the implementation of the new policy in this thesis has not been without recognition of the significant size and complexity of implementing the whole policy. Unless the other major segments of the policy are treated to the same careful analysis that preceded the RTLB programme, it is likely that the policy will face major barriers to success.

In the writer's opinion the successful implementation of the RTLB programme<sup>2</sup> demonstrates how a new policy can successfully transform practice and potentially improve outcomes for students who are in need of additional assistance. This element of the SE2000 policy has been judged to be successful (Wylie, 2000), at least in part because of the training programme. Perhaps more to the point is that it demonstrates that an inclusionary approach coupled to a support service focused upon systems and the teaching-learning process can succeed.

There are three elements to this success that deserve comment. The first is the transformation of a special education service from a deficit orientation to an inclusionary one. The SE2000 policy was introduced in a visionary manner but without a clear indication of how it would be implemented. The Wylie Report (Wylie, 2000) indicates that the implementation has not been universally successful. Only that aspect of the policy which met the criteria suggested by Darling-Hammond (1993,1995,1998) that there should be an alignment of policy, professional development and resources, has been largely successful. The implementation of the other aspects of SE2000 has been less than successful for a number of reasons. Chief among these, in the writer's opinion has been a lack of coherence in the management of the policy. No other section of the policy has been aligned with credentialed training. No other section has been driven by a clear orientation toward an educational model instead of reliance upon a categorical approach despite the fact there is no legislative need to be so. Only in the RTLB programme has there been a clear and unambiguous determination to proceed with an inclusive, problem solving, educationally oriented model of action. Given that when the RTLB service was introduced there was no clear statement of how it would function, only the training differentiates it from the other elements of the policy.

According to the Associate Minister of Education (communication with the University Consortium, May 2002) inclusion of students with special needs and

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<sup>2</sup> While a full, comprehensive evaluation of the RTLB programme has not yet appeared, The Wylie Report (2000) and subsequent monitoring reports by the Ministry of Education suggest the programme is successful.

those who are struggling to learn is a priority. Notwithstanding the need to retain some element of special provision for those students for whom it is impossible to provide full inclusion for all their school lives, and for whom provision will be made within regular school settings at least, the notion of special education as a separate provision is under review. This focus is entirely consistent with the thrust of the effort to provide for effective teaching and learning outlined in this thesis.

The Draft Review of Special Education (1987) advocated the replacement of the parallel system of regular and special education with a single system. In such an organization, special education services and resources would become a support service to regular education. Existing special education resources would neither be abandoned nor neglected. They would, however, have an administrative authority, which would oversee their retention as a major facet within the education system, able to support regular class teachers and school leaders in their joint efforts to ensure successful outcomes for all students. With the exception of residential schools dedicated to very high need, low incidence disabilities or students who are a danger to others, the existence of segregated special schools would be incompatible with such an organization. For an indication of the writer's contribution to the discussion leading to inclusion, see Appendix C.

At present, special education support is divided between the former Specialist Education Service (now Group Special Education [GSE] within the Ministry of Education), the RTLB programme which is devolved to schools, the newly established Resource Teacher Literature programme, again devolved and paraprofessional support attached to schools or individual students. Placing special education resources within the framework of a school support service would bring together all elements of support to schools under one structure. Such a move would go a long way to creating coherence and consistency within the SE2000 policy.

The third issue, which has been apparent both in the literature and in the stepping-stones of this thesis, is that of school organization. Earlier in this thesis the reform of school organization was considered within the concept of change. This is more an issue for the secondary sector of education than early childhood or primary

education. In particular, there is a case for arguing that ultimately, the secondary sector of education must reform before more fundamental changes can improve the teaching-learning process for at least 30% of students in that age group. Whether one takes the history of slowness of the secondary system to change (McLaren, 1985), the closely argued proposal for radical reform offered by Capper, et al. (2000) or the anecdotal comment of one lead teacher that “45 minute periods are too short for effective lessons” one is struck by the need to review the organization for learning at this level of our education system.

All of these advances would attract professional development programmes to ensure their viability. For inclusive schools to be successful the staff of these schools and particularly the leadership must understand the conceptual and operational issues of the process. Support staff must be effective and credible. At present only psychologists, speech-language therapists, RTLB and a small number of staff involved with students with sensory disabilities are uniformly qualified for the work they do. Formal training for more than two thousand of the three thousand or so special education professionals remains to be put in place. Furthermore, the training of those professionals who are qualified for the work is not necessarily consistent with SE2000. Only the RTLB training is predicated on policy intentions and is provided consistently across the country.

It is the writer’s view that special education, and preparation of professionals for their work will be reviewed in the near future. That review should include a careful evaluation of how the RTLB programme has been implemented. This thesis offers a modest contribution to such a review.

This final section draws together the search for a model of support for inclusion. It confirms the proposition, outlined at the beginning of this thesis, that an inclusive education system will require highly trained and effective consulting teachers as support for their colleagues in the mainstream of education.

## APPENDIX A

# RESOURCE TEACHERS LEARNING AND BEHAVIOUR: COLLABORATIVE PROBLEM SOLVING TO SUPPORT INCLUSION

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*(In print with the Journal of Positive Behavioral Interventions)*

## Resource Teachers Learning and Behaviour: Collaborative Problem Solving to Support Inclusion

With the implementation of a new policy on special education (Special Education 2000), New Zealand has moved to develop a world-class inclusive education system for students with mild to moderate learning and behaviour needs. This paper will outline a professional development program for a group of resource teachers who are to implement a major element of the policy. It will report on the establishment of the training program through the collaboration of faculty from three universities. There will also be comment on the challenges to such a program, the ways in which these challenges were met through collaborative problem solving; and some outcomes to date.

### Background

New Zealand is a small constitutionally bicultural country in the South Pacific region with a population of 3.8 million people. Sixty-six per cent of the school population are of European origin, 18% are Maori (the indigenous people), 7% are of Pacific Island origin and the remaining 9% are of Asian or other ethnic origin.

Entitlement of students with disabilities to full inclusion into the state education system in New Zealand was legally ratified on 1 January 1990 (Education Act 1989), ensuring that all students were permitted to be enrolled at a state school. Special Education 2000 (SE 2000) was a new inclusive special education policy developed and implemented from 1996 – 2000. Inclusion was not, however, defined and therefore, as in other countries, has been open to multiple interpretations. (Feiler & Gibson, 1999; Fuchs & Fuchs, 1994; Skrtic, 1995). The terms *mainstreaming* and *inclusion* are frequently treated as synonyms though clearly their conceptual foundations are quite different and, as has been argued elsewhere, effective inclusive practices in education require a paradigm shift in practice as well as policy (Skrtic, 1995).

## The Policy

SE2000 policy separated funding and delivery mechanisms for children and young people with high or very high special education needs (approximately 3% of the student population) from those with moderate needs (4 to 6% of the student population). To address the needs of the latter group, 500 special education teachers in New Zealand schools were reformed into Resource Teachers Learning and Behaviour (RTLB). A further 250 new positions were created to ensure a teacher: student ratio of 1:750 (Cabinet Paper, November, 1997). RTLB were to work systematically to assist schools in developing strategies for students with behaviour and/or with learning difficulties. In particular they were to be proactive in helping schools to develop systems that provide support and training for teachers. The Ministry of Education made provision for a post-graduate professional development program to prepare the existing special education teachers as well as the new RTLB for this task.

The Ministry of Education contracted a team from three universities who formed a consortium to develop a national plan. This unique partnership provided a teaching team from each institution which collaborated to develop, trial and deliver a tailor-made post graduate program to meet the needs of the professional development task.

## Conceptualising the Task

In order to identify the most appropriate format and curriculum for the program, the consortium used an S-T-P (situation – target – path) procedure set out by Schmuck and Runkel (1994). In this procedure, problem solving first identifies the current situation, then generates alternative paths or plans to move from the present situation to a target or desired situation.

The consortium team analysed the current situation in New Zealand, noting the issues of an existing paradigm in which most of special education was conceptualised, the practices which flowed from that conceptualisation and the organizational structures which support both the paradigm and the practices.

## The Situation

Finding a conceptual model for inclusion required a shift from the existing mainstream approach. Mainstreaming (sometimes referred to as integration) is the process of bringing students who have hitherto been excluded or segregated from the mainstream of education into school. Inclusion goes further, by requiring the organizational structures to change to meet the needs of diverse groups of learners. Given that in our society public education is a right of everyone, classrooms need to be constructed around a broad definition of acceptability. Mainstreaming focuses on changing the child; inclusion focuses on changing the school environment to make it more accommodating to all children (Ferguson, 1995). Inclusion requires a reconceptualisation of what the mainstream is – a social reconstructionist viewpoint that requires us to rethink our basic notions of what schools should be. The inclusion movement questions some of the basic assumptions of special education and is fundamentally about school reform.

Thus, as Skrtic (1995) and others (Moore et al. 1999) have argued, inclusion is more than a different model for special education delivery. It is a new paradigm for thinking and acting about the education of students with special needs. The deficit paradigm assumes that when students experience problems with learning or adapting to the regular class environment the difficulties reside within the student. The task of the educator is to try to fix, improve or compensate for these “deficits” so that the student can succeed in a mainstreamed educational environment that is **not** adapted to meet their particular needs. If this is not possible then they must be withdrawn wholly or partially to special educational settings (Moore et al., 1999). The inclusion paradigm regards school failure as the result of such factors as school organization, programs, curriculum, quality of instruction and performance demands that do not meet the diverse needs of the students.

This paradigm shift reflects a larger development in general education and indeed in society, questioning the basic beliefs that shape education and social practices. The inclusion movement can be subsumed under the umbrella of the multi-cultural education movement. The aim of multi-cultural education is very much in keeping with that of inclusion – to work toward structural equality in educational institutions to ensure that all students have access to meaningful

learning (Ferguson, 1995). The paradigm shift underpinned the training of the resource teachers in New Zealand and had major implications for the curriculum content of the program.

Two thirds of the RTLB cohort had previously been engaged in a range of withdrawal or individual remedial activities. They had established roles with their host schools and had a degree of credibility as well as comfort in these roles. Therefore a major situational issue was the need to work with a group of RTLB who had, largely, been trained and were practising within a functional limitations paradigm.

A second issue was the poor achievement levels of the indigenous population. Maori are the indigenous people of New Zealand, and 18.5% of just over 700 thousand children in our schools identify themselves as Maori. A treaty (The Treaty of Waitangi) signed in 1840 guaranteed Maori certain rights to ensure their continued participation in the governance of the nation, full partnership with the settlers and protection and promotion of their treasures including their language in perpetuity, their preferred educational pedagogies and their culture generally. A critical issue is the low levels of academic achievement of many young Maori and the high rate of suspension and exclusion from school.

Finally, the teaching cohort and the organizational structures under which they would operate presented some challenges. The RTLB had an average age of 47, few had recent graduate or professional retraining. Compulsory training was a requirement for taking up their new positions. Most were uncertain and unskilled in the use of computers and information technology. Furthermore, all these teachers would be employed by self-managing schools and not managed centrally. Management committees act as “street level bureaucrats” (Weatherley & Lipsky, 1977) who work within the constraints of the resource provision to ensure the delivery of the policy as they define it, not always consistent with the intention of SE2000. For example, a few management committees require RTLB to work to a pull-out model. This seems to be an example of what Rae (1998) describes as “an ongoing tension between equity as a goal and choice as a means of responsiveness and effectiveness” (p.492).

## The Target

The RTLB role is a new and challenging one that demands a high degree of professional expertise, knowledge and experience. A major focus of the training of RTLB is to enskill them to bring about structural changes in schools and classrooms. Their role is to assist teachers to make the curriculum accessible to all students by establishing inclusive, highly effective classroom environments, and removing any barriers to learning of students with diverse needs.

RTLB are expected to work effectively within school systems and to use collaborative problem solving to facilitate change where necessary. This requires an ability to negotiate, facilitate and coordinate changes in school systems and routines. In order to do this, RTLB must take into account the myriad of influences on the teaching-learning process: the socio-cultural background of the students, policies and regulations, together with management systems, and the teachers themselves. This has been conceptualised as a dynamic, interacting system centred on the management of learning (Brown, et al. 1999). To reach this target, the consortium of universities had to develop a program that would ensure the effective acquisition of these skills.

## The Path

The University consortium worked collaboratively on the design and delivery of a professional development program that would be appropriate to the demands of a new paradigm and the necessary re-orientation to practice and organization.

From the outset the team considered three essential program delivery issues. The first was whether to incorporate studies of indigenous (Maori) cultural issues and educational aspirations within the whole course or as a separate study topic. Reference was made to a rununga (group of expert elders) who considered options and gave advice. The final decision was to include the study of Maori throughout the entire program. Our reasons included the “mana” or importance and pride of the topic that could be diminished by allowing it to be seen as a hurdle to be jumped rather than an integral part of a practitioner’s working life.

The second was the delivery style to be used. It was agreed that while academic standards would be maintained at the highest levels, the information to

be given would be delivered by way of active, participatory seminars. For this reason it was agreed that cooperative learning (Johnson, Johnson & Smith, 1998) would be the method of delivery. Cooperative learning, including a wide range of cooperative styles appropriate for primary and secondary school classrooms would be modeled by all lecturers. As we explain later in this paper, the assignments associated with the curriculum ensured a range of teaching-learning strategies would be required to meet the tasks set for assessment of learning.

The third was the site and timing of delivery. It was decided to take the program to the RTLB students, in two- and three-day block courses with supporting distance procedures using e-mail. This forced the entire cohort to become computer literate. Thus, the lecturing team traveled to central locations in each major district. In this way, the lecturers could become acquainted with the schools in the district, to speak with educational leaders in those districts and to gain some insight into the wide ranging and often-different cultural and attitudinal qualities of the RTLB and the educational communities they served.

In constructing the program, content was developed based on five recurring themes:

*1. A focus upon an inclusive teaching philosophy that recognises and values diverse strengths irrespective of age, gender, ethnicity, ability/disability.*

The RTLB program includes a range of inclusive teaching strategies including cooperative learning (Johnson & Johnson, 1989), strategic teaching (Brown, 1992), reciprocal teaching (Gilroy, & Moore, 1988 ; Westera & Moore, 1995), Hikairo Rationale (Macfarlane, 1997) and peer tutoring (Cameron, & Walker, 1994; Greenwood, Delquadri, & Hall, 1989; Medcalf, 1992).

*2. An educational / ecological approach to assessment and intervention.*

This approach places emphasis on the learner in interaction with the learning environment. The RTLB must now be able to analyse the crucial features of this environment in addition to the characteristics of the learner (such as academic performance) with which most RTLB would be more familiar. TIES II, The Instructional Environment System (Ysseldyke & Christensen, 1993) has been adopted as a fundamental assessment instrument that enables the RTLB to identify a student's instructional needs within the learning environment.

Applied behaviour analysis, a framework that has served special education well in the traditional paradigm remains a feature of the program working within an ecobehavioural perspective (Cantrell & Cantrell, 1985). The methodological rigour, the emphasis on data and the track record of successful practice of the behavioural model are married with the ecological and system analysis perspective into an ecobehavioural orientation within the RTLB program.

### *3. Collaborative consultative model of problem solving*

For many of the teachers undertaking the role of the RTLB there will be a major change in the way they work. As Glynn (1998) succinctly puts it "The RTLB has the challenging task of supporting all those 'other' teachers to take up their individual and collective responsibility for the learning and behaviour of all the students in their classes and schools" (p.5). This approach of working with others as agents of change is consistent with the ecological paradigm that recognises that the learning and behaviour of students is a result of the interaction between the student and the learning context. If a change is to occur it will be as a result of changes in this interrelationship. The class teacher is crucial to this process. An important aspect of this theme of the program derives from a constructivist view of learning, stressing that for effective and lasting change to take place, the class teacher has to play a major role in defining the problem and developing the solutions. The RTLB need to have appropriate problem solving skills to initiate / facilitate this collaborative consultative process.

### *4. Acknowledgment of cultural values and preferred practices from within a Maori worldview*

The need for RTLB to be effective in supporting teachers of Maori students is clearly evidenced by the high representation of Maori among students experiencing learning and behaviour difficulties (Macfarlane, 1998). There has been a commitment in the development and delivery of the program that RTLB have an understanding of Maori perspectives on human development, learning and teaching and the implications of honouring the Treaty of Waitangi, a foundation document between the original settlers in New Zealand, the Maori, and the European settlers who arrived 800 years later.

### *5. Reflecting on and evaluating professional practice.*

The program encourages RTLB to reflect on their professional practice in a number of ways. They are encouraged to consider their practice in terms of its effectiveness, its consistency with their own assumptions and beliefs, its consistency with best practice and with the role of the RTLB as defined in SE2000.

Initially, a priority in the RTLB training program was content that helped develop awareness of the paradigm shift, how it had developed and the implications for the role of the RTLB (Thomson, Brown, Jones & Manins, 2000). Often we are not aware of the paradigm in which we operate, nor the assumptions that underlie it until there is a paradigm shift or clash (Skrtic, 1995). One of the essential characteristics of a successful consulting teacher is a high level of awareness of his or her values and attitudes (Brown, Pryzwansky & Schulte, 1998). Many of the RTLB had worked in the traditional paradigm from a Euro-centric perspective. Consequently there was a major focus in the program on assisting the RTLB to articulate their “world view” or “paradigm” and to develop in them an awareness of the world view of other cultures, particular the Maori culture, in keeping with the bi-cultural nature of New Zealand society.

These five themes are reflected in the graduate profile RTLB are expected to achieve on completion of the program at which point they will be able to:

1. Work to a high professional and ethical standard;
2. Work to improve learning and behavioral outcomes for Maori students;
3. Work to ensure equitable educational opportunity for all learners;
4. Follow an educational model;
5. Work to a collaborative consultation model;
6. Be skilled practitioners and promoters of effective teaching skills; and,
7. Be reflective practitioners.

RTLB complete four papers which support them in their efforts to achieve the learning outcomes in this profile. These papers have been designed to offer an appropriate program curriculum and associated authentic assessment tasks drawing on the five themes outlined earlier.

The first paper (Students in Context: Te Kuhuna) examines key concepts and theoretical issues that govern interaction of individuals and small groups of students and the contexts in which they experience learning and behavioral difficulties. This includes consultation and an introduction to effective assessment and intervention strategies that support effective, positive outcomes. Classroom contexts and their impact upon the learning and behaviour of students are analysed in the second paper (Classroom Contexts: Te Putanga). Further emphasis is placed on assisting teachers to develop inclusive classroom environments that enhance academic and social behaviour and strategies for adapting instruction in the least intrusive way. The third paper (School and Community Contexts: Te Raranga) analyses school and community contexts and their impact on student learning and behaviour. Here an emphasis is placed on consulting and collaborating with schools and community members to put in place effective strategies and programs, which will enhance outcomes for students. A practicum incorporating a portfolio of professional practice that demonstrates achievement of the learning outcomes constitutes the fourth paper (Professional Practice Portfolio: Te Huarahi). This will be discussed in more detail later.

The assessment tasks in the program required RTLB to:

- engage with the theoretical and research literature that informs their practice;
- write in ways that recognise the relevance and importance of that literature;
- reflect on the relationship between the literature and their beliefs, values, knowledge and practice; and
- practise in ways that are consistent with the role of the RTLB in promoting inclusion.

Assignments needed to fulfil all three purposes of assessment: formative, summative, and evaluative (Ministry of Education, 1994). Assessment needed to be formative so that the RTLB had the opportunity to both practise and receive feedback from faculty to develop the necessary skills and knowledge to meet the program outcomes. Assessment also needed to be summative as RTLB were required to pass each of the four papers and demonstrate by the end of the

program that they had achieved the learning outcomes. Thirdly, the consortium needed evaluative data from the performance of the assessment tasks to enable refinement of the program for improved RTLB practice. Consistent with the constructivist view of learning on which the delivery of the program was premised, assignments needed to allow the RTLB to engage with ideas holistically, make links to their prior experience and reflect on their personal perspective. The consortium was keen to ensure that assessment tasks had “consequential validity” (Shulman, 1998), that is, through completion of assessment RTLB would improve the quality of their practice.

Assessment tasks in the first three papers were designed to meet specific learning outcomes of the program. They required RTLB to write academic essays, literature reviews and reports of casework in which they demonstrated an understanding of certain theoretical knowledge, the literature that informed their practice and how they were applying aspects of this knowledge to their work. Initial writing tasks in the first paper were designed so that RTLB engaged with the literature about inclusion and were able to demonstrate that they understood its difference from mainstreaming. These tasks also allowed RTLB to practise and receive early feedback on their academic writing skills.

Assignments in Papers Two and Three also required the RTLB to review the relevant literature, e.g. peer tutoring, effective schools and educational change. Following such reviews the RTLB were then required to develop and report on collaborative programs or investigations in the classrooms and schools in which they worked. These authentic tasks not only ensured RTLB had relevant knowledge and skills for their new role but also that this new learning was evident in their practice. In Paper Three RTLB were required to participate in a cultural experience in an authentic setting where they were required to follow protocols and present themselves in the language of the indigenous Maori people of New Zealand. All assignments in the first three papers, whether written or practical tasks, required RTLB to conclude with written statements that related the issues raised to their role as an RTLB and to their personal beliefs and values. These assignments were also designed to scaffold the RTLB into the major portfolio requirement in the final paper (see below).

There remained two challenges for the consortium. There was a need to widen the view of RTLB practice from the prescribed assignment tasks so that faculty could assess how consistently their practice met with the seven interrelated outcomes of the program. Also, given the paradigm shift required of RTLB and the competing and conflicting pressures of their work environments, it was important that they could demonstrate that they reflect on the sociopolitical context in which they work and the role they play in this.

The consortium saw the portfolio as enabling the RTLB to engage in a meaningful interaction between the course content and their practice. The use of portfolios in education has grown in response to the search for methods of assessment that are more appropriate to a constructivist view of learning and teaching (Shaklee, Barbour, Ambrose & Hansford, 1997). Paulson, Paulson and Meyer (1991) maintain that portfolios enlarge the teacher's view of what is learned and allow faculty to view teachers in a broader context than do traditional assessment methods.

The portfolio process proved to be demanding and discriminating as an assessment tool. From an examination of the completed portfolio, questionnaires, focus and individual interviews with a sample of the first cohort and an analysis of 23 concluding reflective statements from the portfolios, a number of themes were identified that confirmed the consortium's decision to include the portfolio as a major tool for assessment and learning. They were that the process:

- was very challenging,
- increased RTLB knowledge of educational theory and practice, especially in relation to the learning outcomes of the program,
- reinforced their personal theory / philosophy,
- increased their awareness of socio-political issues , especially in relation to the Treaty of Waitangi,
- enhanced their ability to relate theory and practice and to critically analyse practice in relation to theory,
- affirmed their practice,

- identified areas of strength and areas for development as well as identifying their change and growth ,
- clarified the RTLB role,
- stimulated focused discussion with colleagues,
- increased reflection as part of their practice.

Evaluation of the portfolio process is illustrative of the problem solving approach consortium members have taken when reflecting on their own practice across the entire professional development program. Monitoring the path is an essential element of this. According to the developers of the S-T-P model, there is a requirement for constant monitoring and recycling of the change process. As Schmuck and Runkel (1994) put it, “Working toward a target tests how well the situation has been understood” (p. 233).

The consortium team followed this principle throughout. Following each and every block, student evaluations were taken and the program reviewed in the light of the feedback received. Following a trial program delivery to one group of RTLB and in subsequent years (we are now in the fourth year of teaching) the course material was reviewed and seminars re-written to reflect our growing understanding of the teaching-learning demands facing both the RTLB students and ourselves.

### Program Outcomes

A variety of in-house and independent measures of program effects are being obtained including measures of change in beliefs and behaviour on the part of the RTLB and systemic changes associated with the program. Here we will present a number of illustrative examples of these outcome indicators.

**Student assessment of key elements of the program.** During the final workshop session of the professional development program, RTLB were given opportunity to respond anonymously to questions designed to assess their view on key-elements of the program. High frequency responses to this survey are summarised in Table 1. Particularly noteworthy is the reported increase in awareness of and sensitivity to issues concerning the indigenous Maori people of New Zealand, the clear focus on both ecological assessment and collaboration

with teachers and other school personnel, and observed changes in attitudes and practices in schools toward inclusion (see Table 1).

< Table 1 here >

**Changes in RTLB practice associated with training.** Annual report data of RTLB cluster-groups (prepared for the Ministry of Education) include information about how RTLB spent their time. This information was analysed particularly to document change in practice across years of training in terms of time spent working with individual children, a role consistent with the functional limitations paradigm, and time spent working with teachers and principals in collaborative consultation developing more inclusive schools and classrooms. The results, summarised in Table 2, show that RTLB who have completed their training spend appreciably less time working with individual students, and more time working in a consultative way with teachers and principals than do RTLB at the beginning of their training (see also Walker, Moore & Timperley, 2001).

< Table 2 here >

**Effective practice case studies.** A study was conducted in which RTLB throughout the country were interviewed and their practice examined to find typical examples of best practice. Two examples (Tables 3 and 4) have been taken from a wide range of activities reported in this study to illustrate systemic interventions by RTLB within a secondary school (See Table 3) and across a school district (see Table 4).

< Tables 3 and 4 about here >

#### Key Factors Assisting RTLB Effective Practice.

The examination of effective RTLB practice through case studies identified a number of recurrent factors, which have supported their work and enhanced its effectiveness. The factors which have been most commonly associated with effective practice in the selected examples are as follows:

- **Management and cluster support.** It is clear that the support of principals and others in management positions within schools has a powerful positive influence on the work of the RTLB. Key elements associated with support

include an understanding of the model the RTLB work within and an ability to engage in collaborative problem-solving.

- Collaborative Effort. The ability of the RTLB to engage with others collaboratively to explore and work through issues is seen as highly significant in facilitating positive and lasting outcomes for all concerned.
- Use of Research-Proven Strategies. RTLB are trained to value the importance of the extensive professional literature available to assist teachers and parents. The ability to access and use research to assist with assessment and intervention in relation to everyday, but often complex issues, is a real strength of the RTLB.
- Culturally Appropriate Practice. RTLB who value cultural diversity are better equipped to understand the influences on individuals and families and respectfully engage in activities that have meaning and support true partnership between people from different cultural backgrounds.
- Taking an Ecological Approach. At the heart of inclusion lies an ability to make sense of the complexity of the settings within which people live and work.
- Ongoing Support. Many of the issues teachers and schools face regularly, cannot be resolved quickly, easily, and forever. RTLB seek to be part of the schools and communities they serve. They are intended to be a resource to schools, providing ongoing support to teachers in a collegial manner and at different levels. Working alongside a teacher to assist in the development of a program for an individual may create the opportunity for further work at the class or school level based on the trust and credibility that have been established previously.

### The Future: Summary and Conclusions

As the professional development program began, Brown (1998) identified a number of potential tensions for the RTLB as they made the transition to their new role. He noted that “Not only must they assimilate a new model in conceptual terms, but they must also have the will to apply it” (p.12). The group of teachers taking up these new positions can be seen to represent the whole

paradigmatic spectrum from a significant number who worked in separate special classes to those who have worked for some time as itinerant teachers in a role very similar to this new one. Prior to taking up the RTLB position approximately two thirds of the group had worked in special education, largely within the functional limitations paradigm (Brown et al., 1999). Consequently there was a great variation in both the conceptual understanding of the role and the willingness to engage in it.

RTLB are required by definition of their role to work with others as agents of change for the students they support. Class teachers are primarily these agents. Many of these teachers have been used to itinerant teachers removing students for individualised instruction and struggle with the expectation that they now accept the primary responsibility for the student's program. RTLB report responses ranging from hostility through bewilderment to ready acceptance when they attempt to develop a collaborative plan for a class based program.

A further tension arises from strain between central control and decentralisation (Mitchell, 1999). The RTLB positions were established by a national policy. The organizational structure for these positions, based on clusters, is formalised in a memorandum of agreement signed by boards of trustees of cluster schools with the Ministry of Education. This memorandum sets out the description and purpose of the position, the training requirements and the management structure. However, in the present climate of school self-management, management committees have been able to deploy the RTLB in ways other than those outlined in the job description. Consequently there is a small number of RTLB who currently teach full time in separate special classes for which an alternative staffing component is already provided. Those in itinerant roles have management committees, some of which may have little or no understanding or commitment to the inclusive/ ecological paradigm (Walker et al., 1999).

Despite the difficulties, there are many situations throughout the country where the implementation of this new role has been sound and robust. This is occurring where RTLB who have enthusiastically embraced the inclusive paradigm, have worked with high levels of skill with receptive class teachers who also are committed to inclusive education. These RTLB have been facilitated by

supportive management committees and principals who work energetically and innovatively with them “to find the best possible learning environment and learning strategies for each student” (Fancy, 1998, p.3). Such situations are clear evidence of the words of Michael Fullan, a leading authority in educational change.

Reform in special education represents just about all the issues involved in bringing about educational reform. The solutions to inclusion are not easily achieved. It is complex both in the nature and degree of change required to identify and implement solutions that work. Given what change requires - persistence, co-ordination, follow-up, conflict resolution and the like - leadership at all levels is required (UNESCO, 1994, p.39).

In this paper we have attempted to explain how one constituency, New Zealand, about the size of a small state in Australia or the USA, or a county in the United Kingdom, is establishing an inclusive education system. Despite the complex nature of SE 2000 policy implementation and the challenges posed by the different contexts within which RTLB work, the university team have begun to facilitate the change process. The path towards achieving the desired target has been aided by a well co-ordinated national approach. A key feature of our success in achieving positive outcomes to date has been the strength of the collaborative problem solving carried out by the team of from three universities. This has enabled us to overcome many of the obstacles encountered. We believe that the lessons we have learned may contribute to the international community of educators.

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**Table 1 High Frequency Responses to an Anonymous Student Survey of Key Elements of the Program.**

<b>TOPIC</b>	<b>HIGH FREQUENCY RESPONSES</b>
Awareness of indigenous people's issues	Increased interest, sensitivity, empathy. Awareness of preferred learning methods. Importance of partnership, involvement, consultation.
Method of collaboration / problem solving	Sense of shared responsibility, partnership, valuing the method. Use as a systematic framework. Helpful in defining the role of RTLB. Improved communication.
Insights from ecological assessment	Recognition of total classroom environment. Develops a holistic view. Defines problems and enables inclusive model. Highlights importance of teacher management.
Issues in working at a systems level	Being accepted, acknowledged and recognised in their role as change agents. Awareness of power issues and resistance to change, paradigm conflicts. The importance of good communication, knowing people and creating a shared vision.
View of reflective practice	Recognition of the importance of reflective practice leading to appropriate change in practice towards more focus, structure and theory base.
Impact of knowledge and skill in classroom methodologies upon classroom teachers	Teachers are up skilled. Implement new strategies. Feel more empowered and value new learning.
Influence in the school's relationship with parents and the community	Mostly achieved by liaison, mediation, facilitation and advocacy. Recognising the needs of parents and the community.
Essential elements of sound problem solving in educational settings.	Data gathering, problem definition and analysis through collaborative consultation and relationships.
Observed changes in attitudes and practices in schools towards inclusion	Schools are moving towards inclusion increasingly embracing the principles by greater commitment to keeping more students on their roll. There are fewer withdrawals and more group / class referrals. Some resistance to change by some schools was noted.

Table 2 Mean Percentage of Formal School Time by RTLB Training

	Training not underway or completed	Training underway	Training completed
Working with individual students	54	43	35
Working with groups of students or the whole class	26	29	31
Consultation*	20	28	34

- Consultation included time spent working with an individual teacher or groups of teachers, paraprofessionals, or the whole staff.

**Table 3 Case Study 1; Systems Change in a Secondary School**

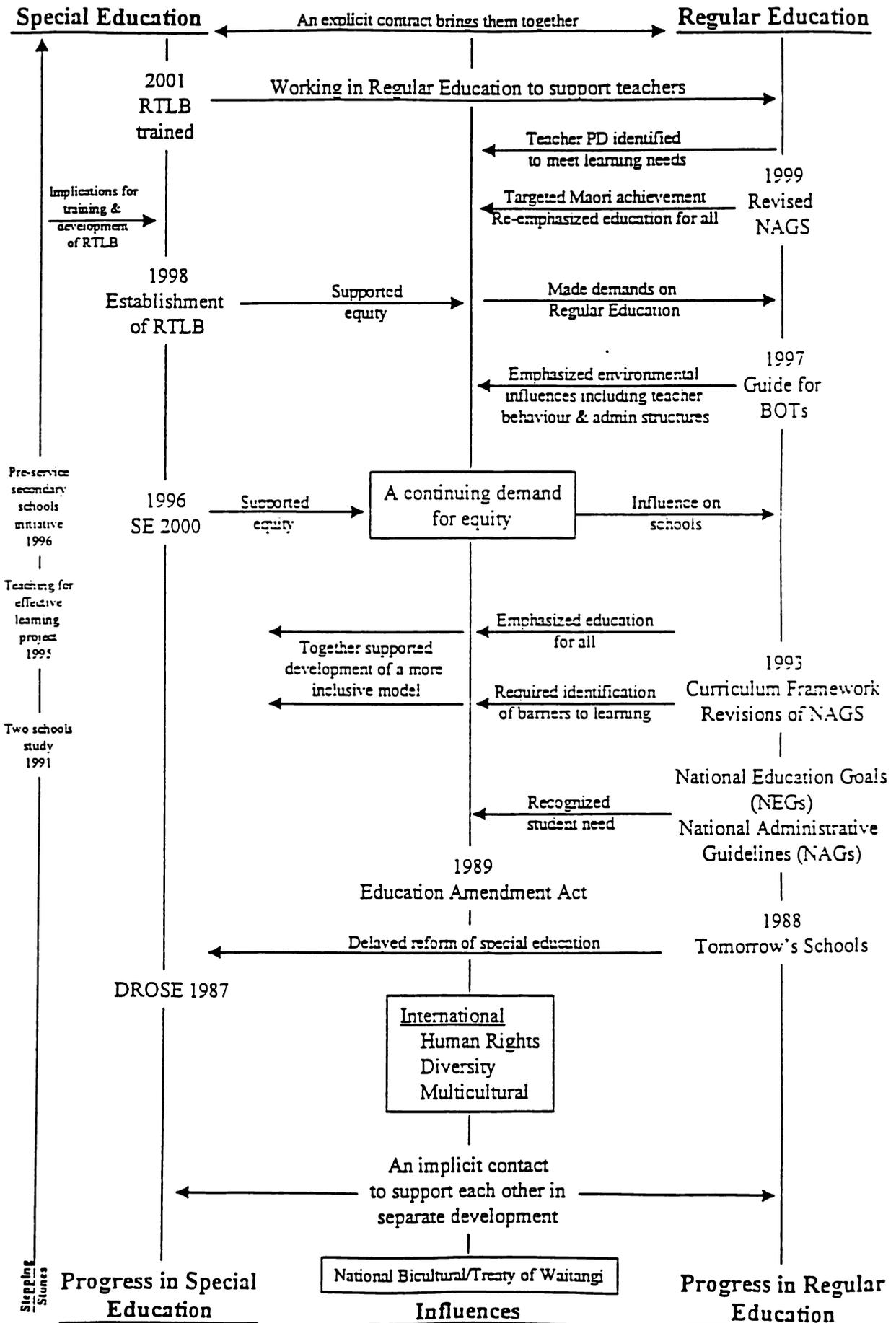
<b>SITUATION</b>	<b><i>ACTION</i></b>	<b><i>OUTCOMES</i></b>	<b><i>KEY ISSUES</i></b>	<b>FACTORS AIDING SUCCESS</b>
Catering for Year 11 students with learning and behavioural difficulties in a large urban high school.	Whole school collaborative problem-solving. Clear problem definition with mutually agreed upon goals. Data-based decisions. Clear role and Responsibilities.	Inter-departmental cooperation. Commitment to joint plan. Principal support through resourcing. Systems intervention involving 7 elements. Reduced classroom disruption. Increased staff skills and satisfaction. Improved student self-esteem and achievement.	Adaptive instruction to cater for student needs. Effective use of existing resources. Setting the scene for student success. Professional development of teachers.	Collaborative problem-solving process involving all school staff. Management support arising from data-based action plan. Utilising proven methods to improve curriculum delivery to students.

Table 4 Case Study 2; Systems Change in a School District

SITUATION	ACTION	OUTCOMES	KEY ISSUES	FACTORS AIDING SUCCESS
<p>The role of the RTLB in a district wide initiative to assist schools in meeting the requirements of National Administrative Guidelines, to consult with and recognize in their programs the rights and educational needs of indigenous people (Maori).</p>	<p>RTLB consulted with school leaders individually to check their understanding of the requirements, how effectively they were consulting their indigenous communities, whether they were implementing national curriculum guidelines and how confident they were in meeting with elders of the indigenous population.</p> <p>The RTLB collected demographic data, questionnaires and surveys of attitudes of staff to the administrative guidelines.</p> <p>The RTLB facilitated meetings of school leaders with community elders.</p>	<p>Meetings were held on tribal grounds between leaders of eleven schools and tribal elders.</p> <p>A working party was formed from schools and parents of the indigenous community to establish curriculum activities which not only enhanced the learning of Maori students but also enabled all students to learn about the bi-cultural nature of New Zealand.</p>	<p>Proactive role assumed by the RTLB in recognizing the uncertainty of school leaders in meeting the requirements of the administrative and curriculum guidelines.</p> <p>Collaborative consultation skills of the RTLB, cross culturally.</p> <p>Recognition of a responsibility to assist school leaders in an holistic fashion to ensure the welfare of all children in her district.</p>	<p><i>Skills of the RTLB in working at a systems level.</i></p> <p><i>Respect for those skills by school leaders and elders of the Maori community.</i></p> <p><i>Willingness of all the parties to work together in harmony to achieve successful outcomes for all students in the district.</i></p>

# APPENDIX B

## TOWARD A REFORMED EDUCATION SYSTEM



## APPENDIX C

### CONTRIBUTIONS TOWARD INCLUSION IN NEW ZEALAND EDUCATION

Publications and presentations since 1986 associated with the move toward inclusion in special education in New Zealand.

Brown, D. F. (1986, October). *Facing opportunities: Special education at a time of change*. Invited address to the 6th APEID Seminar. Japanese National Institute of Special Education, Yokosuka.

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