

INTRODUCTION

Special education uses a range of services and methods of teaching not used in regular education. Practices such as appraisal of each student's needs, individualisation of content and strategies for learning, skills-focused teaching, and careful monitoring and reporting of student progress make it "special" (Kavale, 1990). Central to the provision of these services and teaching methods are IEPs for students that aim to organise and enhance their learning. These programs are individually designed, taught and monitored to meet the needs of special education students who range from those who experience only poor progress in academic learning (and are the focus of this study) to those with profound or multiple disabilities.

1.1 Statement of the Problem

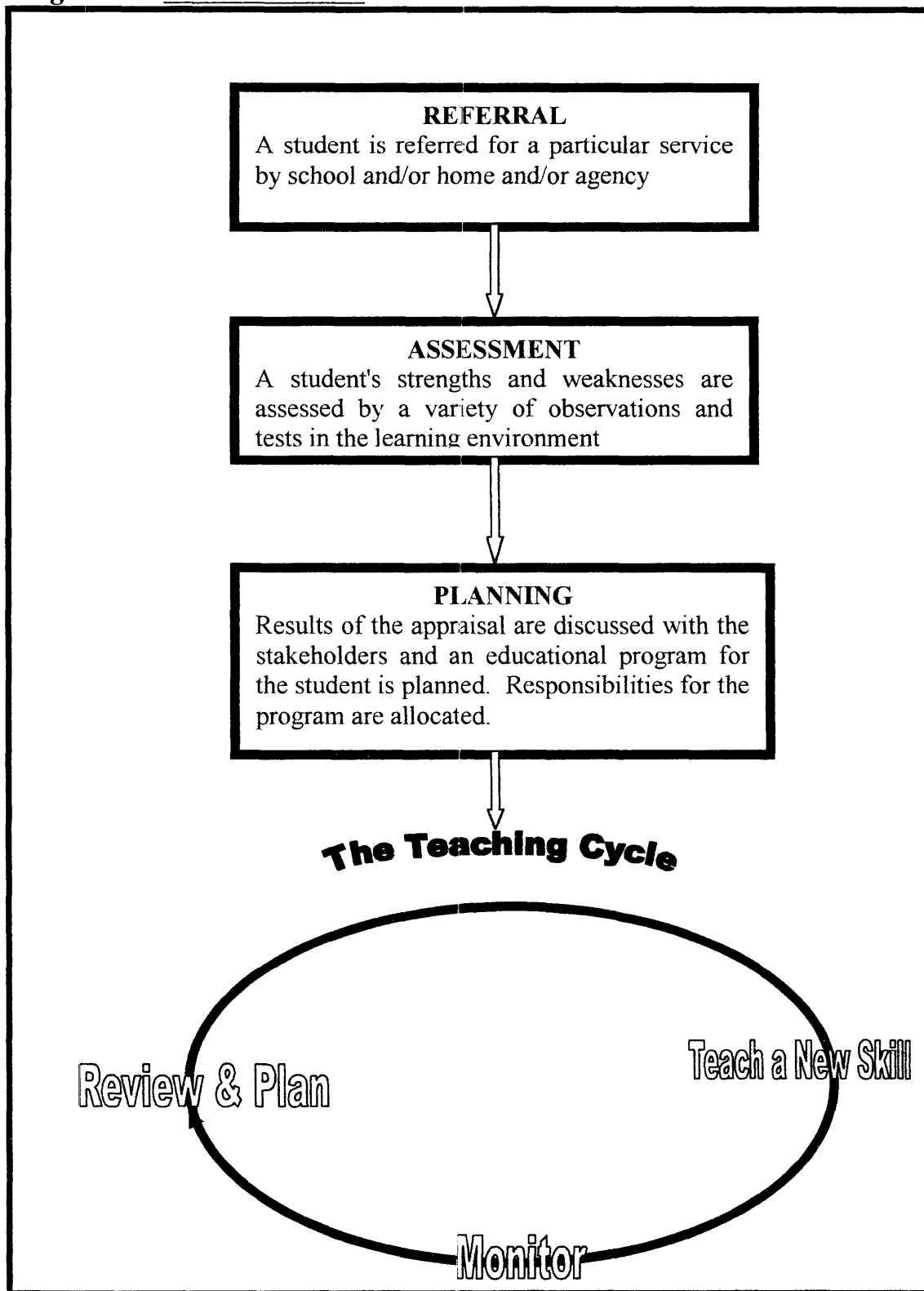
The worldwide movement towards integration and inclusion has brought special education into mainstream classrooms (Foreman, 1996; Ashman & Elkins, 1998). Individual Education Programs (IEPs) are now expected for each student with disabilities who moves into a noncategorical setting, as well as for those who remain in segregated settings. In New South Wales (NSW) where this study was conducted, IEPs are expected but not mandatory for students whose difficulties may range from learning difficulties to severe and profound disabilities. IEPs are an attempt to match the needs of the learner with appropriate tasks and instructional interventions (Mercer & Mercer, 1989). IEPs in some parts of the world also ensure accountability through documentation of the progress of a students who access more resources than regular students and as a safeguard against legal action.

However, the value of the IEP is being questioned in current literature. Some writers have expressed concern that IEPs cause teachers to be less flexible and student focused because the goals for learning are often focused on isolated skills and expressed in narrow terms that impede adaptation by the teacher (Goodman, 1993; Beckers & Carnes, 1995; Cheney & Demchak, 1996). In addition, there is no theory of learning difficulties which is accepted by all researchers and teachers (Poplin, 1997; Swanson, 1988; Weiderholt, Hammill & Brown, 1978) and this causes confusion of expectations with regard to outcomes for certain students and a subsequent lack of direction and explanation for teachers. Regular class teachers are not used to the IEP process and need a clear understanding of the direction their teaching should take. This is especially important for the population of students who are the focus of this study. These are students who are labelled as having "learning difficulties" in the Australian context and are comparable with students labelled "learning disabled" in North America. The educational attainment of these students remains the responsibility of the classroom teacher who may be allocated some time from the support teacher learning difficulties but little other assistance.

1.2 The Study

This study examines how the IEP process (Figure 1.) has been used for students with learning difficulties over a twenty-five period and what impact research and the discussion of important educational issues have had on this process. Specifically, IEPs are studied by examining the patterns and trends evidenced in a sample of student files which document the IEP process between 1971 and 1995 at one centre.

Figure 1. The IEP Process



The 50 individual education programs studied were randomly selected from a centre which has supported students with learning difficulties for over 25 years. The students were identified by the referees (schools, parents, medical and other agencies) as failing to learn within their regular classes despite appropriate teaching. These students were not eligible for placement in other special education services. It is the responsibility of staff at the centre to provide assessment and programming advice to teachers and parents and guide the development of an individual education program for each student referred.

1.3 The Hypotheses For the Study

There were two hypotheses proposed for the study:

1. That changes in thinking about the IEP process as reflected in the literature on special education issues would affect the development of IEPs at the centre under study over time. Examples of the changes in thinking and interest are the development of paradigms and models such as behaviourism, information processing, collaboration and effective teaching etc.
2. Changes in the practices within each of the steps in the IEP process would be evident in the student files.

1.4 Discussion and Support for the Hypotheses

1.4.1 Hypothesis One

The study examined the IEP process for a population of LD students. The purpose of an IEP is to provide a process, as well as documentation and accountability in order to increase success in learning for students who are failing to achieve in regular classrooms. The prevalence of this population in Australian schools has been estimated to be possibly as high as 30% of all students (Ashman & Elkins, 1998).

A problem with estimating the size of of the LD population relates directly to the definition of "learning difficulties" (or "learning disabilities" in North America). Much of the research on this population has been carried out with school-identified students. The difficulty with research based on these populations is that labelling criteria varies from country to country, school to school and teacher to teacher (Blachman, 1988). These variations in LD samples as well as the approach to basic unresolved issues in the LD field taken by researchers affect the paradigm, models and practical methods which have emerged over the last twenty-five years.

In the light of the difficulties with theory and models for LD and current criticism of the IEP process it is important to examine what has happened in practice and whether the use of IEPs has been beneficial. The study also provides an opportunity to examine the practical workings of the stages of the IEP process over the period from 1971 to 1995, giving a picture of how paradigms and models for learning difficulties have been reflected in practice. The nature of changes are of interest because the paradigms debate is significant in deciding how we can most effectively teach LD students. This study provides a unique opportunity to examine change over

time through analysis of the content of student files from 1971-1995 and documents produced by the centre staff from 1971-1986.

It was expected that changes would be evident in the IEP process over time. The movement in the literature away from deficit models such as psychological processes and underlying deficits in students in the 1970s towards metacognition and effective instruction in the classroom during the 1980s and 1990s, together with changes in models of service delivery which have moved towards collaborative consultation during the later 1980s, would be observed in the IEP process reflecting change as an outcome of research findings.

1.4.2 Hypothesis Two

The nature of these changes over time are of interest because they inform us how quickly new theories and models are implemented and how frequently they are discarded. This study examined change under the heading of the IEP process (Figure 1.). We need to understand how the referral process works, in particular what characteristics of students initiates actions and who is active in seeking further help. We also need to see in practice how the various learning difficulties paradigms impact on assessment and how much emphasis is put on the school context of students' learning. An examination of the planning phase of IEPs also indicates how much programs are varied and individualised to match classrooms, teachers and school contexts. The following phase, the teaching cycle, is implementation of the program and how much teachers are concerned with adapting their instruction to assist the needs of students with LD, the effectiveness of teaching, and the appropriateness of the goals set for the student.

The IEP process is central to current models of service delivery for students with special needs. Whether or not IEPs are mandatory, an emphasis on differentiated content and alternative teaching methods is implicit in the documented process of an IEP. The IEP process is complex and the questions asked in this study combine to give a picture of developments in practice over the last quarter of a century and to highlight what works to produce effective and sustainable programs for students.

NOTE: Throughout this thesis the letters LD have been used to indicate students with general and/or specific learning difficulties. In this work, the abbreviation LD is not intended to signify only students with a specific learning disability (i.e. those with at least average intelligence and no obvious cause for their learning problem).

2. REVIEW OF RELATED LITERATURE

This review of the literature is in two parts. The first is a focus on trends in paradigms and models that link the teaching of students with learning difficulties in schools. Development of theories, paradigms and practice from before, and during the period of this study (1971-1995) was traced to establish the thinking about special education that may have affected practice at the centre which was the focus of the study. The second focus of this review is on literature relevant to the IEP process (see Fig.1).

2.1 Paradigms for Teaching Students with Learning Difficulties

For the purposes of this study, the discussion of educational thinking will focus on paradigms and related models of teaching. Theories exist within paradigms to inform the broader beliefs by which we think and act (Poplin, 1988a). *The Macquarie Dictionary* (1987, p.1236) defines paradigm as "a set of concepts, etc., shared by a community of scholars or scientists". From these concepts, models are developed for the direction of teaching. Trent, Artiles and Englert (1997) cite an example of multiple theories working simultaneously which contributed to the development of programs for children with mild disabilities and cite two examples, "child saving" theory and "social control" theory.

Over time LD theory and practice has reacted to shifts in paradigms and their accompanying models for instructional methodology, swinging between the concept of deficits within individual students to a focus on effective instructional methods in the classroom (Swanson, 1988; Poplin, 1995). Beliefs about the etiology of learning difficulties, specifically whether the student's academic difficulties arise from environmental or teaching causes or from clinical factors affect the planning for, and teaching of, students who are failing to achieve as expected in school curricula.

2.1.1 The Medical Model

In the field of learning difficulties expectations in the 1960s and 1970s were that special education practices would remediate these students' underlying difficulties. The difficulties students with LD were experiencing were understood to be outcomes of within student deficits.

This approach to the teaching of students with learning difficulties arose from the work of Kephart, Werner and Strauss in the 1940s. These authors were influenced by the studies by Goldstein in World War 1 who worked with soldiers who had head injuries. Kephart, Werner and Strauss related the symptoms found by Goldstein in his soldiers to those they observed in the behaviours of students with learning problems (Torgesen, 1991).

From this beginning, a range of theories of the causes of learning difficulties and accompanying approaches to teaching students to overcome learning problems has developed. These are discussed in chronological order.

2.1.2 Psychological Processing/Underlying Deficits

The initial establishment of remedial education in the 1940's was based on the treatment of deficiencies in students using a clinical approach (Golby & Gulliver, 1985). It continues today, under the headings of Diagnostic-Prescriptive Teaching or teaching to underlying processing deficits (Figure 2. Timeline). There is debate in the literature about the effectiveness of programs which presume that remediating underlying deficits will result in improved learning and achievement (Adelman, 1987; Kavale & Forness, 1985; Keogh, 1990a; Reschly, 1987;). However, while the clinical or diagnostic approach is strongly criticised it has not lost adherents who continue to see value in focusing on the specificity of the causes of learning problems (Stanovitch, 1986; Swanson, 1988; Warner, 1993). The underlying belief is that LD students fail academically because of a brain/cognitive deficit that is specific to the requirements of the academic task (Stanovich, 1986).

Proponents of the underlying deficit approach "prescribe" specific special education programs to address the inherent underlying deficits in LD students which have been identified through testing. The tests are based on the belief that precise training for the underlying process will overcome the learning disability (Frostig, Lefever and Whittlesey, 1966). Activities to remediate the deficits include visual-motor training, auditory sequencing or cross-modality training (Torgesen, 1991). During the 1970s critics of this approach pointed to the technical inadequacy of the tests and concerns about the assumption that such abilities cause academic success or academic failure (Arter & Jenkins, 1979; Keogh, 1990; Stanovich, 1986; Ysseldyke & Salvia, 1974).

Today there is still disagreement in the literature about the importance of discovering whether specific underlying difficulties cause the failure of certain students to achieve at school. These critics advocate a focus on

managing the student's learning environment and implementing effective teaching practices (Goddard, 1997; Poplin, 1995;).

2.1.3 Behaviourism

In the early 1970s a behaviourist approach to teaching was strongly promulgated. The behaviourist approach focuses on observable behaviours and breaks down tasks into small steps so that teachers may teach to hierarchical sub-tasks, observe closely and record progress (Cooper, 1996). However, many aspects of learning in the regular school day do not allow for such quantification and students' achievements may vary from day to day or context to context. Some researchers indicate that the rigidity and small focus of the behavioural approach limits the advancement of the student (Cheney & Demchak 1996; Goodman, 1993). In addition, it may also require that the LD student is taught quite different content from the regular curriculum and that teaching strategies and classroom management for the individual student may be additional to that expected within a regular classroom.

2.1.4 Cognitive Strategy Instruction

Flavell (1976) introduced the concept of metacognition, an important part of cognitive theory which arose out of the need for a greater focus on students' thinking, real world tasks and concern about the problems of instruction (Morrison, 1991). This approach reflects a belief that the major goal of schooling is to teach how to read, write and solve problems through the development of thinking skills and strategies that help them to learn (Symons, Snyder, Cariglia-Bull & Pressley, 1989). The cognitive paradigm and models direct teachers to be overtly and constantly concerned with student thinking and to model and scaffold instructional and study strategies for students (Prawatt, 1989).

2.1.5 Information Processing Theory

During the 1980s information processing theory used a computer metaphor to focus on how the senses gather information and how this information is stored, retrieved and used at a later time (Newell, 1980). Deficits in information processing were compensated for by teaching cognitive strategies to enhance inefficient or random learning (Swanson, 1994). The model was developed in part to address the difficulties with the generalisation of skills that were associated with the behavioural model of instruction (Meichenbaum, 1980).

2.1.6 Constructivism

Constructivism, based on the earlier sociohistorical theory proposed by Vygotsky, recognises the importance of social interaction in learning with particular emphasis on the interaction between teacher and learner. In the late 1980s and in the 1990s the behaviourist approach was questioned by writers who observed that "naturalism", "constructivism" and "holism" are more relevant to the classroom teaching of students with learning difficulties (Poplin, 1995; Rettinger, Waters & Poplin, 1989; Warner, 1993).

Some researchers believe that there are elements of constructivism within cognitive strategy instruction because students explore new strategies under teacher guidance (Borkowski, 1992; Hallahan, 1987; Harris & Pressley, 1991). Borkowski (1992 p.255) further states that:

by incorporating the concept of guided discovery, strategy instruction provides ample opportunities for constructive processes to develop and operate effectively...(in fact) ...the (constructivist) approach to writing might be more enhanced by incorporating more explicit, direct instructions.

This cross-paradigm approach is labelled by Stanovich (1994) as "exogenous constructivism" in which both explicit instruction and teacher-directed strategy teaching are advocated as important for students experiencing problems in learning.

2.1.7 Effective Instruction

In the mid 1980s, effective teaching was proposed as the best way to assist students with learning problems. Perfetti stated:

We have got to identify the child's difficulty and provide some instruction that helps. The sooner that is done the better. What is not as good an idea is to send them off for a special disability diagnosis. It is an instructional problem. (Interview Feature, 1993 p.23).

Research on effective teaching focuses on structured interaction between the teacher and learner and includes direct, explicit instruction (Westwood, 1993). This approach focuses on "a process of increasing the participation of pupils in, and reducing their exclusion from, school curricula, cultures and communities" (Ainscow, 1998a).

2.2. Managing Differences in Paradigms and Models

Students with learning difficulties are typically supported by teacher-initiated modifications to curricula or by in-school special education resource teachers. In many situations these students receive support from a mix of general education and special education in a resource or collaborative mode. This kind of interface can lead to confusion about the theories and role of special education, what constitutes specific "special" teaching and

appropriate models of service delivery for students who are experiencing learning problems.

An across-paradigm approach is advocated by some writers, as discussed above, but there also exist practitioners who adhere strongly to only one paradigm. The Timeline (Figure 2.) developed for this study shows that no one paradigm has necessarily been discarded in favour of a new theory and all paradigms have continued to exist in the literature reviewed. The relative influences of one paradigm over another varies across time, however. The Timeline also indicates approximately when, and for how long, each paradigm has persisted. Further discussion of the background of the development of the Timeline is provided in Appendix 1.

The cumulative effect of theories and models shown in the Timeline may have an effect on the way in which LD students are currently supported by the IEP process. Poplin (1988) claims that each model of LD "shares basic fundamental values that reveal that their similarities are far more striking than their differences" (p.389). Poplin refers to the medical model (1950s), the psychological process model (1960s), the behavioural model (1970s) and the cognitive learning/strategies model (1980s). Poplin cites the following similarities between these models:

- all are deficit driven
- each provides sets of sequential skills to teach to a passive student
- each assumes "right" and "wrong" ways of teaching and learning
- each model promotes school goals, not life goals.

A response to Poplin's assertions by Kimball & Heron (1988 p.427-28) emphasises the need to focus on "strengths and needs rather than presumed disabilities or preconceived strategies", to focus on learning

Figure 2. Timeline Developed For the Discussion of Paradigms, Theories and Models for Defining and Teaching Students With Learning Difficulties

1950	Medical Model	Neurological Approach (Clinical and Medical)	
1960	Psychological Processing Theories & Models	(Frostig, Lefever & Whittlesey, 1966)	Move against segregation of students with mild disabilities (Dunn, 1968, Deno, 1970)
	Social Constructivism	(Dewey, 1968, Heshius, 1989)	
1970	Behavioural Theories & Processing Models	(Lovitt, 1975)	Information
	Discrepancy Theory	(Federal Register, 1977)	Theories & Models (Flavell, 1972)
			USA: PL 94-142 (1975) UK: Warnock Report (1978)

Figure 2. cont'd.

1980	Cognitive Strategies Theories and Models	Collaborative Consultation Models (Idol & West)
		Effective Instruction
		(Rosenshine, 1986)
	UK Education Reform Act (1981)	
	NSW pilot study of integration (1985)	
1990	Effective Instruction	
	(DEET, 1992)	
	Mastropieri & Scruggs, 1994)	
	Australia - Disabilities Discrimination Act (1993)	
	UNESCO - Salamanca Statement (1994)	
Key	Medical Model	_____
	Psychological Process Model
	Behaviourism	- - - - -
	Information Processing
	Cognitive Strategies
	Collaborative Consultation
	Effective Teaching	_____
	Social Constructivism	_____
	Discrepancy Theory	

Note. Blue font denotes significant political activity towards inclusion

environment contexts and to view the student as an active learner and use a range of positive teaching strategies. While Kimball and Heron (1988) cited these practices as falling under the umbrella of a behaviourist approach to teaching, these principles also apply to what is now termed "effective teaching". Effective teaching also includes the processes of modelling, explicit instruction, review and practice together with a focus on teacher-student interaction during questioning and review. Given that the nature of curriculum content for classrooms does not change for LD students, a focus on the teachers' difficult task of effectively arranging the instructional environment for practice, feedback and application would appear more timely. For that reason the focus of this study on the IEP process used over time in relation to current approaches is important. However, the difficulty in separating these approaches is acknowledged.

2.3 The Role of Special Education for Students with Learning Difficulties

In 1968 Lloyd Dunn warned that special educators lived at the mercy of general educators who referred their problem children to them. In 1994 Hallahan and Kauffman wrote that special education was still largely in the position of looking to general education to define its own identity. Until relatively recently, in fact, that identity focused largely on programs provided for individual LD students in segregated settings.

2.3.1 Settings

The usual practice for the teaching of LD students is to combine their mainstream class placement with support from a support teacher (learning difficulties) where available. Such support may be provided through resource room withdrawal, collaboration and consultation or team teaching.

The attitudes of mainstream teachers are relevant because students with learning difficulties or disabilities remain enrolled within their regular classes and so remain their class teacher's responsibility.

Current service delivery models (resource room, consultation or categorical settings) continue to present problems relating to the acceptance of LD students within regular classes and the effectiveness of IEPs mainly because barriers such as time or teacher defensiveness impinge on the teaching and learning process for these students.

2.3.2 Teaching Practices of Regular Classroom Teachers

The IEP is perceived by some as superfluous, troublesome and expensive (Smith, 1990; Edelen-Smith, 1995). Its validity is questioned through doubts about how frequently and appropriately student outcomes and goals are changed (Edelen-Smith, 1995) and whether "passive compliance" by teachers leads to failure to individualise programs appropriately (Smith, 1990). Passive compliance by teachers may range from resistance to not implementing strategies because they believe they do not have support, resources, time or training to do so successfully (Baker & Zigmond, 1990; Gajira & Salend, 1996; Margolis & McGettigan, 1988) or because the processes involved in producing IEPs are foreign to their current classroom practice.

Also problematic is the process of establishing learning objectives for each student and whether such program objectives do in fact reflect curriculum content. They may instead be a confused attempt to teach to perceived underlying difficulties such as information processing or visual-perceptual skills (Nickles, Cronis, Justin & Smith, 1992). Teachers should make informed decisions about modifying regular curriculum or focusing on remediating a diagnosed underlying deficit.

Ainscow (1997) writes that the individualised responses required by programs based on assessments and systematic interventions

do not fit with the ways in which mainstream teachers plan and go about their work....the planning frame of such teachers has to be that of the whole class. Apart from any other considerations, the sheer numbers of children in the class and the intensity of the teacher's day makes this inevitable (p.7).

2.4 History of the IEP

Towards the end of the 1960s Lloyd Dunn (1965) and Evelyn Deno (1970) questioned the effectiveness of segregated settings for students. The value of the clinical process underlying the diagnosis of difficulties and prescriptive programming was questioned as there was a gradual movement of students with disabilities into regular classes to access mainstream curriculum (Bateman, 1992).

In the United States of America, Public Law 94-142 was passed in 1975 allowing for the education of students with disabilities in regular classes and also proclaiming the Individual Education Plan as mandatory. Smith (1990 p.7) stated that the American IEP was designed to "provide administrators with proof of compliance, teachers with formalised plans, parents with a voice and students with an appropriate education".

In New South Wales the terms Individualised Education Plan and Individual Education Programs are often used interchangeably to identify both the process of planning and the process of teaching and monitoring student progress. In this study the term Individual Education Program (IEP) includes both the planning and delivery phases of the process. In NSW IEPs

have not been mandatory but have been expected as a justification for the placement of a student in a support program.

2.5 The IEP Process

The IEP process can be broken into an information-gathering phase and a delivery phase. The information-gathering phase of an IEP is the process of referring a student, initial assessment of the student, and consideration of all aspects of the appraisal of the student which culminates in making decisions about placement and setting educational priorities for that student (Figure 1.)

This process is guided by the knowledge that, although different categories of students may exist for resourcing or funding purposes, the population of students with disabilities within each category is heterogenous and each student has differing strengths and weaknesses. The process of the IEP is discussed under the phases described in Figure 1. - referral, assessment, planning and the teaching cycle.

2.5.1 Referral of Students

The issues surrounding the initiation of referral of students for support services are complex and emerge from such diverse sources as the school systems, school culture, school processes, definitional difficulties and individual teacher perceptions. In Australia, as in the USA, the IEP process is initiated by the referral of a student. The process of referring students varies between localities and depends in part on the policy and procedures within the education service and the settings for each service (Christenson, Ysseldyke & Algozzine, 1982; Kavale, 1988). For example, students with severe disabilities may be more readily identified in preschools while

students who have learning difficulties and require adaptations of regular class curricula within schools (and who are the focus of this study) may not be identified and referred until they enter classrooms where their academic performance is more readily compared to that of their peers (Talay-Ongan, 1994).

Students with more moderate or severe disabilities are usually identified before school by parents, medical workers, agencies or preschool teachers. The referral process for students with learning difficulties, however, varies because the definition for this group is not clear and individual teachers' perceptions of student progress differ as do identification processes used by different schools. Torgesen (1986 p.400) states that:

school identified samples LD children are not selected by a coherent set of reliably applied procedures...the children finally selected for placement constitute a sample biased in unknown ways by political and social pressures exerted during the placement process .

Referral of students with learning difficulties is also affected by the referring teacher's or parent's perceptions of the possible outcomes of the referral. Such outcomes may be placement of the student on a particular program availability within the school, or the use of particular interventions for the student. Other considerations for initiating and progressing a referral may be the time of the school year, amount of paperwork required or pressures by advocates (Kavale, 1988b). If no specific educational provisions occur as a result of the referral, then those who have initiated the referral and provided the paperwork for it perceive it as wasted effort (Ashman & Elkins, 1992).

A focus on subtle yet specific differences such as visual-perceptual skills or poor memory which are not directly related to curriculum and classroom teaching can lead teachers in regular classes to assume that

children with learning difficulties are not their concern because they require "special" teaching, not class curriculum. The outcomes of referral may then include a transfer of ownership of the problem to others, and possibly to a group of professionals not directly related to education. In addition, teachers enter the process of referral and appraisal confronted by increased paperwork, data collection, meetings, consultancy and collaboration. During this phase the class teacher may become less central to the process as outside "experts" become more involved. Furthermore, teachers may become anxious about the possibility of delivering programs that are difficult to implement and sustain in their classrooms and which do not match classroom curricula and management styles (Pugach & Johnson, 1989).

One way of combating the difficulties associated with referring students who are having learning problems is to identify specific groups and provide systems-wide prevention programs (Pianta, 1990). Proponents of this type of early intervention argue that remedial education is not successful, especially because it requires repeated failure before a student is eligible to be placed in a service (Graden, Casey & Christenson, 1984; Gartner & Lipsky, 1987).

As stated above, the perception of failure varies between individuals and affects the referral process. Beliefs in the type of teaching needed by students who are failing and beliefs that prevention is more effective than remediation affects teachers' approaches to their students and their willingness to refer them.

A study by Algozzine, Ysseldyke, Christenson, and Thurlow, (1983) revealed that behaviour problems of students were a major cause of referrals. Teachers frequently failed to use information from previous behavioural assessments to develop behaviour management programs and instead appeared to assume a link between behaviour and learning

difficulties. The authors concluded that the correlation between behaviour problems and learning difficulties is not necessarily valid. The study reveals assumptions teachers may make about a link between troublesome behaviour and learning difficulties when referring students.

Teachers' beliefs and their perceptions of their own efficiency also appear to affect their referral decisions (Podell & Soodak, 1993). Teachers with greater confidence in their teaching are more likely to perceive regular classroom placement as being more appropriate for LD students. Teachers who do not perceive themselves as being able to influence student outcomes (particularly students with perceived medical or underlying difficulties) believe that these students should not be in regular classrooms. However, it is also possible that a teacher may fear that the problem is an outcome of ineffective teaching and may defensively fail to refer. Teachers' decisions about LD students are clearly susceptible to bias when teachers perceive themselves as ineffectual (Podell & Soodak, 1993).

How referral occurs, and at what point in the child's chronological development, is a crucial initial stage of the IEP process. Referral sets in motion the process which involves a wide range of decisions about students (Christenson, Ysseldyke & Algozzine, 1982). In New South Wales the establishment of learning support teams within each school is being encouraged within government schools to identify students through within-school screening, statewide testing and teacher observation. These students may then be considered by the team for extra within-in class assistance before any formal referral takes place. School processes for identifying students and making decisions about supporting them are an important issue for school leadership.

Parents' concerns about their child's performance at school the general increase in awareness of advocacy rights and community demand

for accountability also have a role to play in the referral of students. In responding to concerns expressed by parents school-based teams may circumvent some of the difficulties associated with teacher-initiated referral.

Referral carries with it implications that may be philosophical, legal, political and financial (Nevin & Thousand, 1987 p.282). For example, Algozzine, Christensen and Ysseldyke (1982a) state that referrals of students increased by 17% between 1976 and 1980 as a possible outcome of the introduction of PL94-142, thus increasing the range of students serviced, the time span for which they were served, the placement of students, teacher training and funding. However, these authors also argue that the increase in referrals fostered a tendency to redirect students suspected of having nonspecific conditions such as speech impairment, learning disability, emotional disturbance or mental retardation into special services. In an important study, Algozzine & Ysseldyke (1981) reported that up to 51% of workers involved in the placement decision-making process declared 'normal' students eligible for special education services. It appears that referring students may often act as a self-fulfilling prophecy.

In summary, initiation of referrals is affected by class teacher's perceptions about their students based on their own beliefs, by the availability of support services and by within-school processes. Referral decisions are largely subjective and affected by contextual aspects of classrooms.

2.5.2 Assessment

Assessment is the phase of the IEP process where there is the greatest focus on the appraisal of the student's needs. The teaching cycle at the end of the process also incorporates monitoring through continuous

assessment of student progress.

2.5.2.1 Assessment and the Paradigms Debate Historically psychologists were the first to examine individual differences between people. They based their work on psychometric normative data, thus establishing notions of "normal" and "abnormal" (Golby & Gulliver, 1985). Initially, the assessment of students had its roots in the belief that underlying difficulties could be diagnosed and treated (Kirk, 1963; Figure 1. Timeline 1950s and 1960s). Kavale and Forness (1995 p.148) claim:

Originally, the concept of specific learning disability referred to a particular student subgroup who did not achieve commensurate with their ability presumably because of central nervous (CNS) dysfunction that was most prominently reflected in a variety of psychological process disorders. The "specific" adjective implied a discrete and circumscribed condition rather than a generalized failure that would be more akin to mental retardation.

Continued disagreement about the etiology of learning difficulties affects decisions about what to assess and what to use to assess students in order to assist their classroom learning. The debate about the causes of LD calls into question the use of intelligence tests and other psychometric tests to categorise students. Other types of assessment used to contribute to the IEP process may also be questioned because the needs of students with learning difficulties are ill-defined (Thorley, 1994; Kavale, 1988; Clay, 1987). An assessment process should result in making teaching decisions for a student and for LD students this requires consideration of both the classroom context and the curriculum.

2.5.2.2 Testing for Teaching Decisions Some standardised tests focus on how students with learning difficulties are functioning with regard to underlying processes. However, the results of such tests should be treated with caution because validity is often suspect. For example, Salvia and

Ysseldyke (1991 p.308) state that the *Bender Visual Motor Gestalt Test* presents no evidence about the extent to which the test assesses visual-motor perception and state the same for other tests of perceptual motor skills that they examine. Salvia and Ysseldyke warn that "The real danger is that reliance on such tests in planning interventions for children may actually lead to assigning children to activities that do them absolutely no good." (p.305).

Tests such as the Kaufman Assessment Battery for Children and verbal and performance factors on the Weschler Intelligence Scale for Children are frequently used for determining eligibility for disability services but just as frequently the results do not specifically assist teaching decisions. In addition, lower performance on one or more subtests of these tests may only indicate that that particular subtest measures a generalised difficulty that the student has more effectively (Swanson, 1988).

In terms of students with learning difficulties, traditional psychometric assessment relies on discrepancy criteria which are related to the concept of underachievement. However, the concept of discrepancy does not include aspects considered in some theories and models to be factors contributing to learning difficulties e.g .perceptual, memory, attention, linguistic, social, cognitive and neuropsychological deficiencies (Kavale, 1988). In turn, the teaching of skills presumed to overcome these underlying difficulties difficulties has been questioned (Arter and Jenkins, 1979). Clay (1987b p.157) for example, argues that "we are unable to distinguish event-related (those caused by environment, culture or socio-economic factors) reading difficulties from organically based difficulties".

There is no definitive, reliable or valid learning difficulties test that can be employed for all children referred as students with learning difficulties (Kavale, 1988). Those who believe that underlying abilities (or disabilities) need to be taught will select particular tools designed by theorists such as

Frostig and Kephart which aim to assess capacities such as the percepto-cognitive system, form constancy or visual association (Eaves & McLaughlin, 1977) or certain language assessments which examine the student's thinking and problem-solving capabilities. Others will choose alternatives to psychometric and other standardised data such as curriculum-based assessment. This type of assessment leads directly to identifying students who need help in particular curriculum areas and in monitoring student progress towards goals (Phillips, Fuchs & Fuchs, 1994).

Along with particular beliefs in theories and models are the political agendas of those concerned with maintaining special education as a separate system of education. They claim writers who contend that qualitatively different instruction is not required for students with learning difficulties are sounding the death knell for the division between regular and special education (Kavale, 1990). Others counter this by stating that the long term goal of special education is to change the learning environment so that all students can learn more effectively (van Kraayenoord & Elkins, 1990) and that, in fact, special education is moving to the centre of basic educational practice.

2.5.2.3 Curriculum-Based Assessment Assessment which assists in evaluating the curricular progress of students lends credibility to the IEP process because such continued measurement gives an indication of achievement for particular skills in the teaching setting (Maccow, 1991). A widely used curriculum based assessment is *The Observation Survey* (Clay, 1996), and the *Running Record*, which is designed for continuous sampling and analysis of the student's reading behaviour to monitor progress. Curriculum-based assessment can be more directly used to plan instructional programs and establish goals. However, qualitative assessment also enhances quantitative assessment to give a more complete appraisal of the student. Qualitative assessment also counteracts any bias in the

selection of testing materials (Mercer & Corbett, 1991) because it reflects the reactions of the student to the "real" learning tasks.

2.5.2.4 A Range of Assessments There are limitations to focusing on only one type of assessment. Eaves and McLaughlin (1977) argued for including a wide range of assessment types in order to gather evidence for making decisions about a student. They advocated using a wide range of observations and assessment within the constraints of time, expense and effort. Such assessment could include an examination of past records and classwork, interviews with people who know the student, screening tests, standardised and non-standardised tests together with observation of the student in different settings. Using quantitative and qualitative assessment of the student and his or her environment gives a clearer appraisal of the student. Such an appraisal can enhance decision-making about what and how to teach the student because it gives a cohesive evaluation of skill level, attitudes, responses and motivation (Wilchesky & Reynolds, 1986). It also contributes to information about how to support the teacher in changing classroom strategies or management.

2.5.2.5 The Purpose of Assessment The purpose of assessment is to meet a range of objectives: identifying students needing assistance, giving grades, evaluating teaching, helping teachers plan and to report to colleagues or parents (Ainscow, 1988a). Analysis of the student is only one part of assessment. Those working in education also need to ask what it is that students are being asked to do and what restrictions the learning environment may place on achievement outcomes. Assessment does not only focus on the inherent problems the learner may, or may not, have. However, if those conducting assessments believe in the theory that underlying deficits cause learning difficulties, then they will choose tools that measure this. Other practitioners who promote behaviourist principles will

focus on defined subskills while those who promote effective teaching principles will include an analysis of the environment and students' responses to interactions during lessons. The theoretical position assumed by those assessing and making support decisions has an effect on the kinds of tests selected and the range of observations taken to assist in making educational decisions.

2.6 Planning

The next step in the IEP process is to arrange a meeting between all those involved with the student's learning including, where appropriate, the student. The purposes of the meeting are to report on the outcomes of the assessments used, to decide on the goals that the stakeholders agree are most important for the student and to decide on placement and resourcing required to meet those goals. The plan for the meeting is to focus first on the individual needs of the student and then to consider teaching and setting options. It is at this point that limitations for developing a program can be felt because placement options have specific guidelines, regulations and within school processes and constraints (Weiderholt, Hammill & Brown, 1978 p.53).

2.6.1 Placement

The probability of any referred student with learning difficulties being placed on a particular teaching program or partly within a separate setting is great (Nevin & Thousand, 1987; Algozzine, Christenson & Ysseldyke, 1982b). While expectations are currently greater for collaboration and team teaching to take place within the classrooms, withdrawal for intensive interventions still occurs e.g. Reading Recovery sessions (Ashman & Elkins, 1998). It is at this point that the question of responsibility for students with learning difficulties is most emphasised with focus once again on the issues

associated with whether to withdraw the student for special teaching. A study by Christensen, Elkins, Ashman & van Kraayenoord (1996 in Ashman and Elkins, 1998) reported that between 40-50% of the Australian teachers studied had no knowledge about the kind of program and teaching that was carried out during pull-out sessions.

Two strongly emphasised doubts among researchers and educators are: (1) that students with specific learning disabilities and difficulties will not be served or may be inadequately served (Houck & Rogers, 1994; Lerner, 1987); and (2) concern whether regular class teachers are able to meet the needs of those students (Kauffman, Gerber & Semmel, 1988; Houck & Rogers, 1994). These concerns are not resolved. Part of the reason for the lack of resolution is the debate about the etiology of learning difficulties and associated adherence to different paradigms. There is also an issue of equity for students with learning difficulties in the same way that there is for students categorised with other disabilities or other disadvantaged groups. It has become more than a bureaucratic challenge to quantify resources for a particular group - it is a question of validating the "differentness" of students without requiring them to fit into a particular mould (Slee, 1998).

2.6.2 Paradigms and Program Choices

The paradigms adhered to by IEP participants has an effect on the way curricula are modified, the mode of service delivery for the student and the academic expectations of the student. The deficit paradigm of inherent dysfunctional processes within the student leads to the idea of separateness and differential teaching. It has been claimed that this sometimes clinical approach has the effect of discouraging teachers from inclusive practices and influences the kind of program implemented for the student (Dumas, 1983). Even temporary withdrawal of a student from the classroom can imply that some special sort of therapy is required in teaching the student (for example, specific teaching for attention, visual perceptual skills, short

term memory or auditory sequencing problems or particular speech and language programs). However, other theories which focus on metacognition and effective teaching have direct relevance to adjustments of classroom teaching and management for the teachers and students in the regular class.

2.6.3 Selecting Strategies and Giving Responsibilities

A useful group meeting is characterised by interdependence and cohesiveness. IEP meetings, however, may well be the first time that some of participants have met. Communication processes related to relationships, individual agendas, listening ability and level of individual involvement are important for the result of the meeting (Taylor, Meyer, Rosegrant & Samples, 1989). While participants at the meeting may have the best of intentions, careful thought needs to be given to the processes used to choose interventions. It is critical that any chosen program or setting does not do harm (Davidow, 1994). A program may fail because of the way in which the student's needs are communicated by those who have assessed the student, by biases about interventions from those who are making recommendations, or by assertiveness by experts who propose particular programs. Acceptance by the group at the meeting must be whole-hearted and not subject to compromise or negative feelings by teachers or parents who feel they have been coerced. Gajira & Salend (1996) report that, although some interventions for students had been presented to teachers as having great efficacy for students, knowledge about efficacy did not always relate to teacher satisfaction. They also suggest that sometimes negative feelings in teachers are expressed obliquely or through avoidance by passive resistance during the delivery of the program to the student. Similarly parents may feel negative about having to take on, for example daily practice of occupational therapy programs to remediate their child's fine or gross motor skills.

The goals for the IEP as set by the meeting are accountable, whether

the IEP is mandatory or not. They are accountable because stakeholders, at the meeting, including school executive and parents, expect that there will be progress and that teaching programs will be directed towards improvements in learning. While students may have many needs, the meeting must decide how to prioritise them so that the IEP helps the student but is also feasible to deliver.

During the planning meeting decisions may also be made about issues such as curriculum priorities, responsibilities of teachers involved and participating parents, special equipment and modifications, appropriate placement and ways of reporting the student's progress (Special Education Project Team, 1991). An individual education plan is developed based on these decisions. The plan may be set out under headings e.g. What/How/Who/When, giving responsibility for the teaching of parts of the program to targeted teaching or tutoring staff. This type of plan establishes responsibility for certain parts of the program and assumes that there will be time for communication between all those involved in teaching a particular student.

IEP meetings are problematic because of the numbers of stakeholders involved. A student with multiple needs may have assessments from various medical and other professionals who contribute their reports and recommendations. In one sense, this exemplifies why programs need to be individualised and why individual education programs form the basis of special education. However, it is also doubtful whether the people involved in the meeting have the information and understanding to compose individual plans and programs that are viable for students in schools. Ashman and Elkins (1990) write:

It is doubtful if special educators have the knowledge base to construct sound IEPs for all students, which too often in the past have

been pious statements of behavioural objectives. Both parent input and regular reviews offer hope of some improvement of the IEP, but a richer theoretical base than behaviourism is needed to formulate educational plans for students whose needs are compounded by complex sensory, physical or intellectual impairments" (p.59).

The challenge for those involved at IEP meetings is to form an appropriate educational option and to agree on that option. Choosing an option depends on participants' views on the educational relevance of teaching to underlying difficulties, teaching isolated splinter skills or developing an explicit and focused teaching style which differentiates by "adjusting teaching to meet the learning needs of individual children " (Westwood, 1993 p.23; Lewis, 1992). Agreement may be difficult to reach or may be token only, for example, where therapists who are used to a medical model of frequent individualised sessions insist that the content of these kinds of sessions is imposed on the school day. True agreement will only be reached when the participants trust one another.

At the meeting, the choice of options is also governed by each participant's ethical and moral philosophy about the rights of the student to an appropriate education. The outcome of decisions at this meeting will affect the teacher who has to deliver the program and the level of support provided for teachers therefore needs to be considered.

For a fully developed IEP the roles of each person in the implementation of the program should be clearly defined, not only in terms of the needs of the student, but in terms of the needs of the person implementing the program (Meier, 1991). For example, the teacher may need some professional development in how best to deliver an aspect of the program or may benefit from visiting another school with a particular model of classroom management or teaching method which is working successfully. While introducing "best practices" into schools does not

automatically result in improved achievement (Jenkins, Jewell, Leicester, Jenkins, & Troutner, 1991), the discovery and implementing of effective teaching practices is more important than educational setting (Leinhardt & Pally, 1982). Consideration of the development of different teaching practices for mixed ability classrooms should be given by school executive who attend IEP planning meetings and also by school systems in their planning for training and development programs.

2.7 The Teaching Cycle

The program content and goals determined at the meeting now become part of the teaching cycle of deciding what, and when, to teach, monitoring student progress and making decision about what to teach next or to reteach. Ainscow (1990) writes that there are three aspects of teaching essential to successful response to individual needs: (1) teachers have to know their pupils well in terms of their existing skills and knowledge, their interests and their previous experience; (2) pupils have to be helped to establish a sense of personal meaning about the tasks and activities in which they are engaged and (3) classrooms have to be organised in ways that encourage involvement and effort. As discussed earlier, there are barriers to the success of implementing IEPs. These may arise from school culture, teacher factors and the practical limitations of the IEP.

2.7.1 School Culture and Organisation

Individual schools develop a particular culture over time which evolves from the nature of the surrounding community, the demographics of the students and the nature of the school leadership. The culture of a school also depends on the interrelationships between school staff which are affected by both intra-personal beliefs and value systems, inter-personal

professional relationships, friendships and by changes in staffing.

School culture, guided by school executive and committees, can offer structure to the process of working with students who have special needs by defining protocols and procedures for identifying and planning and by providing resources to assist. Schools often struggle with finite resources that are allocated on a formula basis (Sawatzki & Walsh, 1990). This difficulty, combined with a possible ethos against inclusion or doubts about schools making a difference, may affect the development of processes within schools which encourage teachers to work collaboratively for all students.

The process of planning for students with special needs and evaluating school programs includes redefining staff roles, changing the functions of some staff, establishing a timeline for change and planning for professional development (Villa & Thousand, 1990). There are also issues involved in determining which group of students or which individual students will access finite support provision. Issues such as equity are affected by the values and beliefs held by school staff, individually and collectively.

It is also important that school executive understand the purpose of IEP development so that both students and teachers can be supported. The role of outside stakeholders can become an issue within schools where a particular code of conduct may be in place or where teachers feel threatened or in conflict with others involved with IEP planning. School executive also need information on resourcing, cost barriers, and identification of staff who can facilitate modified programs for the diverse population of students with special needs or who can mentor other teachers towards effective teaching (Idol, 1988). Quality professional development for teachers must be a priority. Time is also a problematic factor, both in organising the logistics of bringing stakeholders together for review or for assisting in providing time for staff to collaborate and to evaluate programs (Idol & West, 1991).

2.7.2 Teacher Factors

When an IEP is planned, a range of personnel comes together to provide information and advice. However, it is frequently only the teacher who has the major task of implementing the plan after the meeting.. If the teacher has not been involved in the assessment, or if the assessment tests used are unknown to him or her, then it would be difficult for that teacher to understand the implications of what is being said at the meeting by the "experts" who have performed the assessment. If the teacher has difficulty in relating directly to the assessment information then it would be fair to assume that that teacher would have difficulty in achieving ownership of the program (Polloway, Bursuck, Jayanthi, Epstein & Nelson, 1996). The teacher needs to take into account the rest of the class, the material to be presented to the class, the demographics of the class, classroom management and may need support in managing the inclusive approach.

2.7.3 Contrived Collegiality Hargreaves (1994) writes that the culture of teaching is built up by individual teachers over many years and includes a personal integrity developed from practice and experiences where they have used personal attributes such as discretion, initiative and creativity to develop a style which is important to them. While the development of an IEP is presumed to be collegial, in many ways it is really contrived collegiality because it is (1) obligatory to work with the IEP team, (2) essential to implement the agreed upon goals of the team and (3) mandated by policy, procedures or expectations in most departments of education (Hargreaves, 1994).

Effective collaboration is based on mutuality and trust but the perceived authoritarian nature of administrative and expert stakeholders who are part of the planning team can affect the altruistic attitudes of teachers, turning them instead to self-protectiveness, defensiveness and self-interest

(Hargreaves, 1994 p.256; Tindal, Shinn, & Rodden-Nord, 1990). For example, the nature of therapy or behaviour recommendations can appear daunting and burdensome to teachers who are focusing on teaching and learning within the school context. Teachers frequently have no time or resources to assist individual practice in articulation, fine motor programs or recording of targeted behaviours.

During the delivery phase of IEPs the combination of forced collegiality, perceived "expertise" of IEP team members and requirements of a particular focus or use of strategies may result in the teacher feeling coerced rather than sharing in the process of collaborative consultation (Witt, 1990). The compulsory and implementation-oriented nature of expert consultancy can affect ownership and control, and can result in negative and resentful reactions by teachers leading to inflexibility and inefficiency (Conoley & Conoley, 1989; Hargreaves, 1994; Idol & West, 1991;). Little (1990) writes that teachers can be reluctant to ask for advice or to offer it because of their perceptions that it may involve judgements about their professional abilities or may be perceived as being competitive.

2.7.4 Collaborative Consultation Collaboration and consultation between staff members and outside participants such as therapists and parents is a way of assisting individual classroom teachers cater for diversity of students within their classes. It is a way of managing contact between staff involved in teaching the student. However, the practice of collaborative consultation has not been easy to achieve within schools. Studies of the effectiveness of the collaborative consultation process have been more descriptive and qualitative than quantitative (Idol & West, 1987; Lloyd, Crowley Kohler & Stain, 1988, Keogh, 1990). Some studies of individual projects in particular settings have been over a longer period but others have only been over a few weeks or with one or two individuals. Other studies have only considered teachers who have volunteered, not the attitudes of a general

sample of teachers (Johnston, 1994).

A study by Johnson and Pugach (1990) required 232 teachers to rate on a Likert Scale 57 interventions for reasonableness and then conducted follow-up interviews of 87 teachers. The results revealed a complexity of attitudes towards the interventions and the involvement of other school personnel. For example, teachers did not rate highly seeking advice from other teachers about behaviour intervention strategies but felt more comfortable about seeking advice on academic strategies. The researchers felt that teachers were anxious about exposing their classroom management strategies but less anxious about requesting help for academic strategies. This research begins to show how the fears teachers have can interfere with their implementation of strategies for students.

More research needs to be carried out to uncover the meaning and value teachers give to various interactions with colleagues and what these interactions require of teachers. However, understanding single components of the interactive process of collaboration is a simplistic solution because the factors cannot be examined separately (Conoley & Conoley, 1989; Finch & Rasch, 1992; Friend & Bauwen, 1988; Hargreaves, 1994; Kennedy, 1991; Patching, Stafford & Boyle, 1991; Piersel & Gutkin, 1983; Williams, Gold & Russell, 1993;). Elements such as resistance by teachers, ways to improve interpersonal communication, the balance between altruism and self-interest, the need for school leadership to adopt autocracy or democracy, and an understanding of how technical knowledge and expertise are best shared are part of a successful culture of collaboration. There are currently few definitive answers from the research (Keogh, 1990).

Some writers in the field have focused heavily on interpersonal communication skills and conflict resolution. Some have devoted whole books to this element (Conoley & Conoley, 1989). Others propose the

management of teacher resistance by exploring the characteristics of resistance, then offering strategies for dealing with each manifestation (Friend & Bauwens, 1988; Piersel & Gutkin, 1983). Other writers look to developing teacher training programs to develop skills in both regular and special education teachers (Idol & West, 1987; Kennedy, 1991; Patching, Stafford & Boyle, 1991; Williams, Gold & Russell, 1993). While these proposals are important, the most effective way of delivering this training and development has not been determined.

2.8 Practical Limitations of the IEP

There are elements of the teaching cycle discussed in the literature which affect the sustainability of teaching to individual programs in classrooms.

2.8.1 Modifying the Curriculum

In order to cater for the needs of individual children, the curriculum often needs to be modified. However, Wang (1992 p.125) writes: "Adapting instruction to student differences places considerable strain on the teacher's time, as well as the teacher's skills in diagnosing and making curricular decisions, reorganizing and restructuring the classroom environment, and managing the classroom processes".

Before further addressing the modification process, it is worthwhile to examine the current teaching climate which exists within Australia and the western world. There currently exists a "two track" system for educating students with special needs - that is parallel, but separate, segregation and integration policies exist which lead to a range of policy dilemmas (Ainscow, 1996a). In NSW there are substantial responses required by schools to address the special needs of children, together with legislation for school

improvement, including attempts at a National Curriculum and statewide testing for students in Years 3, 5 and 7. Competition between schools is evident in the form of annual reports and the privatisation of services such as cleaning is increasing. There is public criticism and almost constant calls for reform within which schools and teachers are struggling to take charge. Teachers view themselves as having to make compromises such as giving higher achieving students more independent work while they directly teach students with special needs, or attempt to pitch their lessons somewhere in the middle (Simmons, Fuchs & Fuchs, 1991). In each single classroom there is a wide range of individual differences. For example, Clay (1987b p.6) states that "by the third year of school there is a spread of six years of reading age within a class". The assumption of modifying instruction is that wider ranges of abilities in students can be accommodated so that learning and motivation are enhanced (Wang, 1992).

For the purpose of this study, it is appropriate to focus only on those programs, materials and strategies which may be effective for the target population of the study - LD students who may be expected to achieve in the regular curricula but who are falling behind in their learning.

Individualising teaching through documented programs for identified children is one way of accounting for differences in instructional strategies and accounting for student progress. The working individualised education program uses the teaching cycle of assessment, choosing content and strategies, monitoring and evaluating student progress and then reassessing or deciding about teaching changes. Documentation of this process is perceived to give veracity and accountability to all stakeholders involved with an individual student's education.

However, there is confusion in research reports about the kinds of curriculum modifications which are acceptable to teachers. Some reports

indicate that teachers prefer interventions which could be implemented within their classrooms without external support while other reports indicate that teachers favour both within-class and external supports (Johnson & Pugach, 1990).

Overriding the concern at the strategy level, however, are wider concerns by teachers. Teachers are concerned about academic success of all students, appropriateness of their teaching and workload. They are also concerned about how inclusion might work in their classrooms and how this will affect their role (Vaughn, Schumm, Jallad, Slusher, & Saumell, 1996). While the term "inclusion" may also refer to students who have higher needs than those with learning difficulties it has been practice in Australia to withdraw many LD students for individualised resource room teaching for particular skills rather than continue to include them in classes. While teachers are reported as viewing students with mild disabilities as not necessarily belonging to the special education sector of the "dual" education system of regular and special education and are more willing to take on the primary responsibility for these students they still feel that full time placement in their classes would have a negative effect for them and the other students in the class and do not believe that "personalised learning plans" could be effectively constructed and used within their classrooms (Simmel, Abernathy, Butera & Lesar, 1991).

Other barriers to the success of inclusion identified in the study by Vaughn et al (1996) are class size, resourcing, the need for additional personnel, and a desire to teach the general education students rather than become "special education teachers". Teachers' concerns also included parent involvement (or lack of involvement), a fight for funding, accountability and its accompanying paperwork, credentialling for students for transition to post-school and fears about the effectiveness of collaborative consultation.

Some teachers' feelings about the ethics of including students when they were in reality singled out by special teaching strategies or special personnel in the regular classroom were also noted.

A study by Munson (1987) of 26 primary school teachers and 64 students with mild disabilities including learning disabilities (difficulties) and emotional disturbance showed that many teachers were either unwilling or unable to modify educational goals. This then becomes an issue also for teacher training and development.

Modifying teaching is an attempt to "match the learner, the task and instructional interventions" (Mercer & Mercer, 1989). The critical person doing this continuously is the classroom teacher. The teacher selects goals and activities based on his or her own personalised philosophy of education (Cohen & Lynch, 1996). Cohen and Lynch (1996) propose a hypothetical list of questions the teacher asks before modifying teaching for a student:

1. "How do I define learning and its relationship to curriculum and instruction?
2. When I individualise instruction, what do I do differently from when I provide traditional instruction?
3. Do I have different expectations for different students?
4. How do I express these differences in my teaching
5. Can I describe different students' learning characteristics and preferences and what do I do with this knowledge?
6. Do my students feel successful and valued?" (p.9)

Obviously, there are difficulties with defining a clear personal approach to modifying instruction which also encompasses giving homework, grading of completed work, testing with a particular focus on

standardised statewide testing, encouraging task completion and attending to motivational factors (Clark, 1996; Followay, Bursuck, Jayanthi, Epstein & Nelson, 1996; Cohen, 1990).

Teachers also have to select the curriculum content they wish their students to learn. This includes consideration of how much emphasis to place on students' knowledge of definitions and key concepts and how much to place on problem-solving skills and associated skills such as writing critical reviews, explanations or discourse (Tindal & Nolet, 1996). While an outcomes-based curriculum will support a modified approach in primary schools much of the high school approach is imbued with the necessity of covering content to meet examination requirements.

Documentation of an individualised teaching program should be as close as possible to the regular documentation carried out by the class teacher. Any further expectation becomes burdensome, particularly if there is a range of needs within the class. The process of documentation of the student's progress should be negotiated between the teacher and his or her supervisor and also with others involved with the IEP.

2.8.2 Teacher or Content?

"The curriculum may be an important foundation for teaching, but students receive most of their instruction from teacher interactions" (Tindal & Nolet, 1996). Students who are at risk of failing to learn are often alienated in a classroom because of a range of factors. Some of these factors such as dysfunctional family life, poverty, poor medical care and poor diet are outside the control of the school. However, these kinds of factors can be overcome by deliberate planning for classroom climate and management by teachers (Pierce, 1994). Classroom climate includes aspects that affect students' personal feelings and their learning and their social behaviour. Relevant conditions affecting classroom climate include cohesiveness, diversity,

formality, difficulty, apathy, democracy, cliqueness, satisfaction, disorganisation and competitiveness (Anderson & Walberg, 1968). However, teachers' beliefs about the causes of students' failure and their own effectiveness in making a difference for those students affects the approach they take to establishing classroom climate (Soodak & Podell, 1994).

2.8.3 Effective Teaching

Westwood (1995b) writes that some current classroom practices may cause student failure and defines effective teaching as not behaviourist but interactive, explicit instruction given in a spirit of trust and co-operation between student and teacher. Effective teaching includes clear presentations and explanations, questioning and adapting, and teaching task-approach (or cognitive) strategies. Yates and Yates (1990) report that, while learning occurs through exposure to resources, it also involves exposure to a human being who organises and presents new knowledge and assists the learner in the process of making meaning.

This positive and focused approach to teaching is opposite to the "blame the student" or the "deficit" approach which seeks to identify attributions within the student (e.g. social disadvantage, presumed underlying difficulties) which "cause" the learning difficulty. Blaming students directs some teachers away from examination of curriculum, teaching methods and modifications for individual students (van Kraayenoord & Elkins, 1990).

Students with learning difficulties are heterogenous in that they have a diversity of characteristics. Typically, most have problems with lack of achievement in literacy but some also have problems with expressive language, receptive language or mathematics. Some researchers suggest that other characteristics such as difficulties with thinking, attention, visual

discrimination, visual motor skills, memory and metacognitive strategies increase the complexity of the needs of these children (Keogh, 1986; Torgesen 1986; Forness, 1988; Kavale, 1988). If emphasis is placed on the perceived deficits in underlying skills then the student's program will move from a classroom focus on explicit teaching of skills to a time consuming program for teaching to these underlying skills. Research has not shown these types of programs to be effective (Arter & Jenkins, 1979; Kavale, 1990). While debate continues between these paradigms about the causes of learning difficulties and definitive statements about the teaching and learning requirements of these students, teachers need to feel that they have control and effectiveness in their classroom programs for students.

Teachers' management of lessons has a consequence on the effectiveness of their teaching. Pacing of material, explicit teaching procedures, giving students many opportunities for practice, close monitoring with reteaching and regular review, affect students' learning (Mastropieri & Scruggs, 1987, 1994). For example, a study of teacher effectiveness by Sindelar, Smith, Harriman, Hale and Wilson (1986) highlights the differing needs of students for different types of instruction. The authors found that an increase in time spent by teachers in explicitly directing reading instruction was the single best predictor of reading achievement for all students. However, they also found that increases in time spent on independent instructional activities did not lead to achievement for students who are experiencing difficulties with learning to read and concluded that students with greater difficulties in learning do not benefit as much from independent work. This finding has implications for the monitoring of students' learning and focus on guided rather than independent practice for those students who are experiencing difficulties.

The kind of direct and explicit teaching informed and shaped by observations of student responses is not a specific teaching method but a

selective use of methods, resources and strategies to suit the learners in the classroom (Westwood, 1995a; Westwood, 1995b). As teachers are "surprised" by student responses (Schon, 1987), they refine their teaching styles by making small adjustments (Ainscow, 1995). Westwood (1993) terms this "personalising" teaching in that it directs adjustments in manner and method for each student. Teaching is not simply a matter of providing time for independent practice but an outcome of personal interactions with students.

Teachers have to cater for the whole class and it may be that an over-emphasis on individual planning of the type required by most IEPs distracts attention from other stimulating factors which are part of a whole class environment (Westwood, 1993). The difficulty remains with accountability for differences in programming and the learning outcomes for students. As stated earlier, students with learning difficulties in Australia may comprise up to 30% of the population. However, the classroom teacher may not be able to manage to individually document planning for these students in the prescriptive IEP process that is used in special education because it is time consuming and the intense focus on progress in small steps distracts attention from other students. IEPs also appears to require a different style of teaching (mastery, maintenance, generalisation) than the reciprocal nature of regular class teaching.

Recent literature suggests that changes need to be made in the approach used by schools and individual teachers in their approach to teaching inclusively. A whole school planning process to support teachers and their difficult to teach students is being promoted both in the United Kingdom and Australia. A plan for each child can give a baseline guide for all teachers to plan for that student (Ainscow, 1996b). Consideration then needs to be given as to (a) how school staff find time to effectively share their knowledge of students and their planning for them, (b) how cohesive

and consistent changes in content or teaching strategies are made for a student, and (c) how the effectiveness of those changes is monitored for each student. Underlying this are two areas of difficulty. The first is to determine how schools with diverse cultures approach the process of change towards collaboration by all staff. The second is how to ensure individual student plans might meet state curricula and statewide testing. Furthermore, the lack of time is already an overwhelming barrier in schools (Hargreaves, 1994). The approaches outlined still require time to be built into the school day for planning and consulting.

In summary, information about the importance of the management and strategies used by individual teachers has an effect on the IEP process. Teachers are central to the effectiveness of the program and should be considered from the first referral steps. Were they involved in the decision to refer the student? How does the student work within their classroom management? Have they been included in the assessment process? What kind of training and development might be required to assist in their individualising their teaching? Who is best placed to assist in this? The answers to these considerations will vary from school to school.

2.8.4 The Practicality of IEPs

Ainscow (1997 p.3) writes:

..... we have tended to adopt practices derived from experience in special provision. Many of these approaches are simply not feasible in primary and secondary schools. Here I am thinking, in particular, of the individualised responses, based on assessments and systematic programmes of intervention, that have for many years been the predominant orientation within the special needs world....such approaches do not fit with the ways in which mainstream teachers plan and go about their work. For all sorts of sensible and understandable reasons the planning frame of such teachers has to be that of the whole class. Apart from any other considerations, the

sheer numbers of children in the class and the intensity of the teacher's day make this inevitable."

The practicality and sustainability of drawing up an individual education plan (and reviewing it together with all participants regularly) and then establishing the link between the Individual Education Plan and the progress of the Individual Education Program in the regular classroom is the subject of current debate. Implementation of IEPs is required but is often expected without additional resourcing (Hornby, 1995). For example, in NSW each school is expected to establish a learning support team to plan for students with special needs (including learning difficulties). There is no additional funding for this activity.

To be effective, an IEP must be seen as more than a bureaucratic demand (Cooper, 1996). It must relate directly to classroom practice. Traditionally, IEPs have tended to become the curricula - perhaps it is timely to consider them as "supporting the curricula" (Edelman & Scattman, 1993; Giangreco, Dennis, Cloninger). Two studies of IEPs and their implementation (Lynch & Bear, 1990; Sigafoos, Elkins, Couzens, Roberts & Kerr, 1993) showed that relatively small amounts of time were spent in classes on the IEP goals because of the lack of relationship between the goals set in the IEPs and actual classroom teaching practice. A report by Her Majesty's Inspectorate (1990) stated that, in one quarter of lessons, work was poorly matched to pupils' competence level, expectations of the range of students was low and that, in some cases, students with IEPs were left to their own devices during lessons.

To this extent, the involvement of the teacher is crucial. Teachers are at different stages of development with regard to their teaching and management strategies and are at different places within their school cultures. When they participate in planning meetings for IEPs they will have

different responses to their supervisors or outside "experts" during decision-making. Teachers should arrive at the conclusion of the meeting with positive feelings about the student and the effectiveness of the strategies they have agreed to use (Gajira & Salend, 1996). Their feelings of ownership of the meeting decisions are paramount. The role of the principal or nominee supervisor is also important in supporting the teacher in determining the practicality of the IEP goals and strategies.

The issue of effectiveness of "special" teaching is clouded because there is no established method of evaluating classroom practices, nor of comparisons between special education teaching and regular class teaching (Bender, 1986; Morsink, Soar, Soar & Thomas, 1986; Patching, Stafford & Boyle, 1991; Thorley, Hotchkiss & Martin, 1990).

2.9 Conclusions

Barriers to IEPs exist at all stages of the process. Underlying many of these barriers are teachers' attitudes towards students who are failing in class, and the attitudes towards paradigms of teaching for underlying difficulties or teaching to modifications of the curriculum. The mystique surrounding special education and IEPs is being questioned by those who perceive that effective and personalised teaching by regular class teachers achieves results. There are also claims that the IEP is an unwieldy process that is neither sustainable nor producing results that confirm its application.

IEPs may be problematic in that the process of planning involves the input of a group of stakeholders in a collaborative and consultative way which may conflict with school and classroom management and culture. There is potential for differences grounded in definitional problems about the

approaches taken towards educating students who are not achieving in schools which may result in disagreement and conflict about a student's program. Documentation may be difficult and curriculum modification demands by the IEP team may require unmanageable deviations from class content. The programs may become unwieldy and burdensome for classroom teachers. However, IEPs have been developed and have persisted as a process for individualising teaching to suit a student's needs. The central process of IEPs is continuous review and reflection on individual student progress. This process is essential to the education of LD students but, at the same time, teachers need to view their students in an inclusive way. The IEP process for these students needs to be considered so that it is not burdensome for regular class teachers.

3. METHOD

3.1 Introduction

In his article in 1968 Lloyd Dunn proposed that:

In diagnosis one needs to know how much a child can learn, under what circumstances, and with what materials. To accomplish this, there are three administrative procedures possible. One would be for each large school system - or two or more small districts - to establish a "Special Education Diagnostic and Prescription Generating Center." Pupils with school learning problems would be enrolled in this centre on a day and/or boarding school basis for a period of time - probably up to a month and hopefully until a successful prescription for effective teaching had been evolved. The core of the staff would be a variety of master teachers with different specialities - such as motor development, perceptual training, language development, social and personality development, remedial education, and so forth. Noneducators such as physicians, psychologists, and social workers would be retained in a consultative role, or pupils would be referred out to such paraeducational professionals, as needed. A second procedure, in lieu of such centers with their cadres of educational specialists, would be for one generalist in diagnostic teaching to perform the diagnostic and prescription devising functions on her own. A third and even less desirable procedure would be for one person to combine the roles of prescriptive and clinical teacher. (p.12).

The quote by Dunn describes a clinical approach by special educators, based on diagnosis followed by recommendations for prescriptive teaching. Dunn's (1968) focus for the centre he proposed was for an individualised approach to ascertain what skills the student has already acquired and then to prescribe a sequential program to move him/her forward from that point. Methods involved in teaching in this way included reinforcers for behaviour and trialling different modalities for teaching. Dunn termed it "clinical" or "prescriptive" teaching and stated that the failures

would be program and instructor failures, not pupil failures. Dunn was advocating a "science of instruction". This approach incorporates elements of the medical theories of the 1950s as well as the underlying difficulties theories of the 1960s and behaviourist theory (see Fig.2). Since Dunn's time other theories about learning difficulties have been proposed, including a focus on curriculum skills analysis, metacognition and effective teaching.

The centre studied matches quite closely Dunn's description of a special education centre. It commenced in 1971 and continues today. In this study it provides a source of data for examining changes in the development of IEPs for students over the last 25 years. The staff of the centre also published articles and conference proceedings which indicate their awareness of theoretical developments during this time (see Appendix 2. for titles). The methodology adopted for this study was content analysis of randomly selected student files and the published material from the centre. These documents were related to a conceptual framework for IEPs and to the timeline developed from a study of relevant literature.

3.2 The Purpose of the Study

This analysis of IEPs programs is intended to provide insight into what was incorporated into the IEP process over time, what may have been discarded, and what was retained. The central research method used was content analysis in a historical context through the case study of one centre. This approach has produced data which is quantitative and qualitative.

3.3 The Centre

The centre which is the focus of this study began in 1971 as a clinic for students with learning difficulties. In many ways it could have been modelled on Dunn's (1968) proposal. The aim of its establishment was to provide a diagnostic service to assist in the identification of learning difficulties. Initially the voluntary staff of the centre consisted of four educational psychologists, a remedial adviser and a part-time speech therapist, social worker and a nursing sister who assisted with the hearing and vision screening tests. The centre struggled at that time with staffing because many who volunteered had full-time commitments elsewhere and it was difficult to find time for planning meetings and related activities. Over the 25 years studied the centre's role has evolved into a primary responsibility for assisting a range of schools in supporting LD students.

As in Dunn's (1968) proposal, the centre staff have always been a multidisciplinary team. Their mandate is to assess LD students' needs and recommend treatment for students with moderate to severe problems including behavioural, emotional, and communication deficiencies. In many senses the centre is unique because of the time it has continued and because of its use of a multi-disciplinary team. While it is not possible to compare the activities of this centre directly with other models of service delivery, it does represent one kind of provision for students experiencing greater than usual difficulties with learning. In other areas these students may be referred to various agencies by their parents or teachers for help in understanding and supporting their learning. Alternatively, and most commonly, they may be served by in-school specialist teacher support.

Situated in a country area, the centre currently employs 6 staff including a co-ordinator who takes an active role also in assessment and

programming for individual students, a support teacher learning difficulties, a psychologist/support teacher learning difficulties, a speech pathologist (full time) and an occupational therapist (2 days per week). The caseload has fluctuated over time, varying between 50 and 100 students at any one time.

3.4 The Sample

The data used in this study came from an analysis of the content of 50 randomly selected files from the archives of the centre. The population of students documented in the archives was boys and girls from preschool to Year 7 (8th year at school). The random selection of files resulted in a sample of 14 girls and 36 boys, including one preschooler and two students enrolled in high school. It was not possible to identify students' ethnicity from the files. The sample size of 50 (10 for each 5 year period - 1971-75, 1976-80, 1981-85, 1986-90, 1991-95) was considered adequate to examine the use of the IEP process within the centre (Cohen & Manion, 1994 p.90). The files were sampled within each five year period using random sampling numbers (Hald, 1952).

Contents of publications and conference presentations from 1971-1986 written by the centre staff were also examined. These were stored at the centre as archival material. A list of the publications available from the archives is contained in Appendix 2.

3.5 Research Design

While content analysis may serve as the central method in an investigation, it can also be used to test preliminary ideas, hypotheses, hunches, or theories prior to a more complete investigation.

(Williamson, Karp and Dalphin, 1977 p.309).

Content analysis is a mix of both quantitative and qualitative research. The quantitative data in this study rests with frequency counts of the occurrence of specific phenomena over time. Measurement allows for a disciplined approach to determining the presence of certain phenomena. The frequency and time measurements in this study contribute to the results and conclusions. However, the study also contained examination of documents of work already carried out - a practice Lankshear (1998) terms "RE-search".

The process of content analysis allows for further development of ideas and hypotheses as the study itself evolves. While it is a research method used to extract data in a systematic and objective way from communications by establishing categories, the initially established categories may be increased or refined as the study develops. It is a quantitative method that measures the frequency of the occurrence of particular items (Williamson, Karp & Daulphin, 1977). However, the data in this study are also qualitative because themes and connections in the material are identified and illustrated by appropriate quotes from the files so that the IEP process may be better understood. In this study categories were identified through the literature review then within the *Non-Numerical Data Information Synthesising and Theorising* (NUD.IST, 1997) program to develop focus to further explore the data (Sepstrup, 1981).

3.5.1 The Non-Numerical Data Information Processing and Theorising Program (NUD.IST)

The NUD.IST program was useful in decreasing the time required for data analysis and interpretation. Its search function helped to locate keywords in the summarised documents. However, once the information was located it was then necessary to review the summary (and the original documents in the case of Centre Publications) to ensure consideration of the context of statements about the key concepts. As the researcher's interaction was not with participants but with written material, the effect of participant-observer relationships was not present. Personal biases and views of the world which influence data interpretation are unavoidable. However, as far as possible the researcher has articulated any assumptions made about the data and been careful not to make value judgements during analysis.

There were no real limitations of the original set of questions and keywords formed for the NUD.IST searches. Because content analysis generates further questions and enables flexibility in following patterns and ideas, the limitation was the thinking of the researcher not the structure of the program. The information from the student files was recorded for the process as described in the Figure 1. which was derived from the literature (e.g.Cohen & Lynch, 1996; Cohen & Lynch, 1991; Hoover, 1990; Graden, Casey & Bonstrom, 1985; Graden, Casey & Christenson, 1985; Weiderholt, Hammill & Brown, 1978). It uses the major headings: referral, assessment, reporting and recommendations, the teaching cycle. A sample student file summary is attached in Appendix 4.

The text units entered into NUD.IST for "Files Information" were also based on the IEP process. Each text unit concluded with the year date so that it could be more easily identified for inclusion in the frequency count.

This procedure also guided manual searches of the documents so that the context of the files could contribute to the analysis.

The *Qualitative Systems Research User Guide* for NUD.IST (Qualitative Solutions and Research Pty. Ltd.) explains that the program is a tool for assisting research development rather than a storage of information. It allows movement between data and analysis (including merging more than one data source - in the case of this study the merging of "File Information" and "File Documents") and also allows for the building up of data into a theme.

NUD.IST was used in this study to explore and access information about aspects of the IEP process. The text search and code capabilities of NUD.IST provided more efficient access to the data summaries "File Information" as well as the "Centre Publications". In this study, NUD.IST was especially effective for matching file information against the hypotheses and, in particular for comparing what was expressed by centre staff in the Centre Publications and what was theoretically strong in the literature at the same time (as represented in Fig.2). This flexibility allowed for a combination of computer and hand searches, together with development of thinking and themes during the analysis process. Categories for searches of Nud.IST were predetermined by the IEP process and by the issues outlined in the literature survey and it was not necessary to develop a category "tree". As the searches progressed and information accumulated, further keywords were selected for searches as thinking and questions during the document examination progressed. Searches were done for the following: behaviour, mother, language, speech, assessment, diagnostic, counselling/counsellors, therapists, training, perceptual, memory, ADD/ADHD, attention, referrals, reports, strategies, teacher. These keywords relate to one or more parts of the IEP process or to the *Timeline (Fig.2)*. For example, the keyword "mother" related to the referral phase the assessment phase, the reporting

phase and the teaching cycle phase and NUD.IST searches identified each reference. It was then necessary to read the search printout, relate it to the original documents where required to place it in context and then discuss it in relation to particular parts of the IEP process or the *Timeline*. Because the text units were set up in NUD.IST in dated blocks also referring to the referral, assessment, reporting and teaching cycle parts of the assessment process it was often not necessary to go back to the original documents.

3.6 Data Gathering Procedures

The files were summarised to make physical handling and searching more effective. They were summarised onto a file summary sheet enclosed in Appendix 4. Notes were taken of reasons for referral and assessment tools used were noted and dated. Reports on students were read and information related to the needs observed from assessments were recorded. Recommendations for programming and support made on the student's file were noted. After this information had been collected the Action Sheet section of the files provided data on further contact with the student and/or others involved in the student's program. Following this, the main storage area of the file was also examined for further comments, test results or formal reports and recommendations. Comments of interest included any statement about progress of the student or actions taken (or not taken) by the stakeholders.

The information taken from the student files was matched to the process as described in Fig.1. based on the literature (Cohen & Lynch, 1996; Cohen & Lynch, 1991; Graden, Casey & Bonstrom, 1985; Graden, Casey & Christenson, 1985; Hoover, 1990 Weiderholt, Hammill & Brown, 1978). The files from the centre followed the same format in their raw state.

3.7 Analytical Procedures

The information recorded in the file summaries was used as the basis for the frequency charts. However, comments about individual student progress, reactions of stakeholders and other observations were taken from the summary sheets and entered into the computer program *Non-Numerical Data Information Synthesising and Theorising* (NUD.IST) so that this information would also be included in the computer searches based on keywords.

3.7.1 Document Searches

NUD.IST searches of the documents "Files Information" and "Centre Documents" which formed the basis for this study proved successful for the following keywords: behaviour, mother, language, speech, assessment, diagnostic, counselling, counsellors, therapists, training, thinking, perceptual, memory, ADD, attention, referrals, reports, strategies, teachers.

Results were not obtained for the following keywords: motivation, sensory-motor and genetic. The searches were partly restricted by the layout of recording for the "Files Information" document which in turn was restricted by both the format of the files and the use of terminology in the files. Consequently information discovered through search printouts needed then to be examined by hand in the original file summaries if further contextual information was required. Each text item in the search printouts concluded with the year date to make referencing easier. The combination of frequency tables, NUD.IST searches of centre publications and searching

for information by hand through both the files and documents assured a thorough examination of all the data sampled.

Information used to compile the frequency tables was collected by working through each summarised file and categorising and counting phenomena as they occurred and entering them into a column relating to the appropriate 5 year period.

Frequencies were established by counting the number of times each particular aspect of the IEP process was mentioned. For example, in constructing the table *Referees* more than one group of people may have contributed to referring the student to the centre. It was impossible to determine from the files who was the primary referee and therefore it was considered that on most occasions it was a joint decision. For referees, then, the table reflects those who were involved from the beginning of the process and, presumably, those who would ultimately take some responsibility for guiding the implementation of the fully developed IEP (e.g. teachers or parents).

3.8 Second Order Analysis of Data

Where associations between phenomena were noted through the examination of frequency tables, these observations provided information for further categories to be investigated (Le Compte & Goetz, 1982). For example, examination of the Recommendations After Reports table (Table) led to thinking about the types of programs recommended and examination of the types of programs recommended (Table 7. *Program Types*). The process of content analysis allows for generation of further ideas during the study.

3.8.1 Centre Publications

In order to provide a match between theory and actual practice, publications by the centre for various conferences and journal articles were examined. The publications, written by staff from the centre or written by presenters at conferences organised at the centre, provided an indication of staff awareness of current research and issues. These documents clearly reflect messages that were given to centre staff at particular times. Many of these writings were presented to an audience of peers in public forums. The material examined consists mainly of the reporting of the processes used by the centre and the paradigms that generated these processes and issues in special education at the time of writing. They are the writings of practising academics and professionals working in the area of supporting students with learning difficulties.

Each centre publication was summarised so that the main points and issues in each article were included, together with amplification of any issue by the author. The focus in summarising these documents was on: (1) centre processes and procedures at the time of writing, (2) references to particular paradigms and (3) information about particular strategies and methods used. A list of Centre Publications is presented in Appendix 2.

3.9 Ethical Considerations

The study is a quantitative and qualitative examination of documents produced by a centre. It does not compare between centres or school systems. It was an important concern of this research that the anonymity of location, schools, students and personnel are maintained. In order to preserve anonymity the information recorded from the student files is recorded simply as "File Information" and the published and presented material by various employees of the centre has been named "Centre

Publications". Confidentiality and anonymity were also preserved by keeping the files within the centre when recording any information from them and not photocopying at any time any section of any file or other document with the exceptions of Centre Publications which were public documents presented at conferences and other forums.

3.10 Asking Questions About the Files

Thinking about the files was generated initially from the literature but also by the process of content analysis itself. Answers to the questions listed in the Introduction Chapter were identified through the study of frequency counts and the researcher's awareness of omission of changes to the IEP process over time. At the same time, the information contained in Centre Publications was able to help identify the likely paradigm approach taken by centre staff and was matched both to the files and the Timeline developed for this study.

3.11 Limitations of the Study

The study is based on analysis of the content of centre files and documents. It also depends on the quality of the literature review and the logic of the description of the IEP process which underpins this investigation.

The literature review was conducted by using library searches of the *ERIC* database and *Dissertations Abstracts International*, by examining references in articles and books for further review. Examination by hand of recent publications of relevant journals (e.g. *Journal of Learning Disabilities*,

Exceptional Children, Australian Journal of Learning Disabilities, Remedial and Special Education 1995-1998) was also carried out. The following keywords were used: learning disabilities, learning difficulties, differential, research methodology/quantitative, research methodology/qualitative, programs, learning disabilities/programs, learning disabilities/programs/elementary, learning disabilities/teacher attitudes, programming, inclusion/learning disabilities, individual education programs, individual education plans, individual programs, IEP, collaborative consultation, teacher training/learning disabilities, team teaching, learning disabilities/consultation, constructivism/reading, cognitive strategies, cognition, cognition/reading, strategy instruction, learning disabilities/strategy instruction, cognitive processing, information processing, teacher attitudes/consultation, service delivery, models of service delivery, resource room, reading/diagnosis, instructional models, teacher attitudes/instruction, teacher expectations, teacher perceptions, referral, learning disabilities/assessment. Searches were also made on the internet using the terms individual education programs, individual education plans.

There were no limitations imposed upon the original set of questions and keywords used to structure the document searches. Because content analysis generates further questions as it progresses and enables flexibility in following patterns and ideas, any limitation was due to the thinking of the researcher, not the structure of the computer program. As Andren, (1981) observes, there are only two threats to the reliability of content analysis research. The first is the system used for defining and establishing categories and the second is the coder who classifies the information into categories.

3.11.1 Discussion of Systems

The categories for study are constrained by the breadth of the search, the constraints of the materials, and the interpretation of the materials by

one person and so it is not necessarily a neutral and value-free process. The description of procedures has been made as clear as possible so that others can examine them for bias (Patton, 1990).

File and document material was initially coded by the author. A colleague familiar with the purpose of this research coded a random sample of 10% of the files to establish interrater reliability. The results of this were 91% agreement. Any disagreements concerning the coding of information were resolved through discussion.

3.11.2 The Centre The study reflects the practices and procedures of only one centre. The data distilled from the students' files relied on reports from past employees who were not available to comment upon individual student files or the accuracy of the researchers. A further limitation of the data source was its implicit reliance on the consistent maintenance of each file. Each file examined had data stored in chronological order which related to the dated action record placed in the front of the file. However, the material from the files was written by people who could not be contacted for any clarification or qualification.

Information gathering was also restricted by the skills of the researcher in conducting a search and considering the implications of the findings for categories and searches in order to generate more information. Validity of the study was also affected by the quality of the literature review, particularly where the structure for summarising file information depended on the review of literature for establishing the summary format and for formulating the research questions.

A strength of the study is in the random selection of the files which is the best method to ascertain content validity or representativeness of the sample. However, the content validity may be affected by the time over

which the samples are taken. Effects such as staffing changes, changes in funding and other events will have taken place. The effect of grouping the files into 5 x 5 year periods may have an effect in diminishing that problem but this limitation has an effect on the extent to which generalisations may be drawn from the data. However, any concerns with reliability are counterbalanced by the validity inherent in studying a phenomenon in situ (Cohen & Manion, 1994). The data gathered and analysed in this study reflects actual practice.

While content analysis may not allow the positivistic surety of empirical research, its validity and strength lies in the possibility of leading to a greater understanding of the problem rather than defining and reproducing readily observable phenomena (Sepstrup, 1987). The truth and relevance of this investigation relies on a combination of the quantitative method of frequency counts together with a qualitative impression of the data. It is hoped that this study captures the spirit of valid communication as written by Williamson, Karp & Dalphin (1977 p.290):

"let us keep in mind that we risk the overall sense of a body of communications if we do no more than offer statistical summaries of their content. Any communication evokes a feeling, an overall impression, or a sense that cannot be captured simply by counting the frequency with which certain items appear. We might say that, in important respects, any communication is going to be more than the sum of its parts. It is for these reasons that we would claim, as we have done in the past, that qualitative and quantitative techniques must be used in conjunction with one another."

This is a study which examines the practice of developing and implementing IEPs over a 25 year time period. There has been a long debate since the early 1970s about the theory underlying the teaching of students with learning difficulties and whether the models developed from the theories over time have been valid. This study is an opportunity to examine how those theories and their accompanying models have been used in practice. It provides an opportunity to discover whether the literature has provided grounding for appropriate, practical and sustainable teaching

for students with learning difficulties in an operating situation over a 25 year period.