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Depression and Learning Disabilities:
A comparison of the
emotional status of normal achieving
and learning disabled fifth formers.

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Abstract

This study was part of a follow-up project on a cohort of school students. Achievement data had been collected since 1982 and measures on affective variables had been made in 1982 and 1983. Part of the sample had been identified in 1982 as having learning disabilities in one or more academic areas. The students who were defined as learning disabled (LD) were displaying persisting negative responses on an academic self-concept scale in 1982 and 83. The present study was designed to compare the emotional status of these students in 1986, when they were now in their third year of secondary schooling and were faced with the first national examination, with a group of students who were defined as normally achieving (NA). General self-concept, academic self-concept and depression were assessed. Students were also questioned about the amount and type of remediation they had received. Although it was hypothesised that more LD students than NA would be depressed because of their history of school failure, this was not the case. Fourteen out of 104 students were identified as having been depressed with the number of LD and NA students being nearly equal. The reasons given for their depression related more to family and social problems than to school performance. Depressed students had lower self-concept scores as predicted, but academic self-concept was not significantly associated with depression. The relationship between depression and School Certificate marks was non-significant. With this sample the type of remediation did not seem to have a measured effect on self-concept, or academic self-concept. Very few of the depressed students had received remediation

and the interaction was not able to be clarified. The results of the study show that depressed students do exist in our secondary schools and it may be necessary for teachers to learn to recognise the symptoms so that intervention is arranged. The generalisability of the information gained here on the precipitating reasons and the effects of depression is decreased by the small number of depressed students. While there is no reason to presume that these students differ from other students of a similar age, further research is necessary to confirm these findings.

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TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
1. Introduction and Overview	1
2. Review of the Literature	6
Learning disabilities	6
Depression	18
Self concept, identity and adolescence	29
Summary	37
Hypotheses	38
3. Methodology	39
Sample selection	39
Sample size and attrition	42
Sample characteristics	43
Instrumentation	44
Procedure	47
4. Results	50
Analysis of emotional status	50
Characteristics of depressed students	53
Depression and socio-economic background	59
Depression and general self-concept	61
Depression and academic self-concept	64
Depression and identity	65

Depression and achievement	67
Remediation and its effects	69
Remediation and students with learning difficulties	69
Remediation and depression in students	73
5. Discussion	75
References	88
APPENDIX I	99

List of Tables

Table	Page
1. Sample composition showing the attrition from the earlier study	42
2. Summary of characteristics of depressed students	52
3. Primary reasons for unhappiness given by depressed fifth formers	54
4. Secondary reasons for dysphoric mood given by depressed fifth formers	55
5. Background characteristics of depressed students	58
6. Occupational status of fathers of depressed students	60
7. Occupational status of mothers of depressed students	60
8. t-test analysis for all subscales of the Tennessee self-concept scale	62
9. Mean Tennessee total scores	63
10. Mean Brookover total scores	64
11. Identity status of form five students	66
12. Mean average School Certificate marks	68
13. Summary of the types of remediation received by students both in 1986 and in the years between 1982 and 1985	70
14. Summary of the subjects in which remediation was received by students both in 1986 and in the years between 1982 and 1985	72

CHAPTER ONE

Introduction and Overview

Children with learning disabilities constitute a group of students who are confronted with failure for a considerable portion of every school day. In New Zealand almost all children with learning disabilities are to be found in the mainstream. Although these children will nearly always be receiving some remediation, usually in the form of small group withdrawal to the resource room, they must face not only their own failure but the relative success of their peers. Research carried out at the elementary school level has demonstrated that learning disabled (LD) children develop much lower academic self-concepts than their normal achieving (NA) peers (Chapman, 1985; Chapman & Boersma, 1979; Chapman, Silva & Williams, 1984). Some studies have shown that LD children also have significantly lower expectations for future academic attainment (Chapman, 1985; Chapman & Boersma, 1979). The expectations held by teachers and mothers for future academic achievement were also significantly lower for LD children than for normal achievers. Since children labelled "LD" are considered to be of at least average intelligence, these negative expectations can only be perceived as logical if they are grounded in past or current achievement. Further, one longitudinal study (Chapman, 1985) seems to confirm the self-fulfilling nature of these expectations. Achievement data was collected for two years following the identification of two groups as LD or

NA. At the end of the three years the LD group was still scoring significantly lower in four main subject areas even though by this time the students had moved on and had completed one year at secondary school. The change of schooling and curricula did not appear to have offset the negative affective consequences of their previous failure.

In fact, as remediation programs in New Zealand high schools are fairly limited in the time allocated to each pupil, it is likely that students already having learning difficulties will continue to do so as they progress through the first three years of secondary education and they will also continue to experience failure. This accumulation of failure may in turn increase feelings of worthlessness and decrease self-esteem and confidence, at least in relation to academic life. Research suggests that this is so (Hiebert, Wong & Hunter, 1982).

At the end of the third year of high school (Form Five) students in New Zealand may sit the external School Certificate Examinations. Entry to the sixth form is based on the results of these examinations. The examinations now have an additional importance as they act as the moderator by which grades become available for sixth form students to earn in the following year. With increasing unemployment throughout the country, qualifications have undergone a devaluation and School Certificate passes are the very minimum sought by employers. Prior to 1986, the external examination, University Entrance, had been used by many employers as the basis of a student's academic merit. As this no longer exists employers will have to choose between the familiar School Certificate or the recently introduced and internally assessed Sixth Form

Certificate. Academic success in the fifth form is therefore very important for future training and employment prospects. School pupils who already have lowered self-esteem and expectations because of past learning difficulties may find their failure at the fifth form level upsetting or depressing because of this additional importance of success.

Some schools do seek to manipulate the stress on students and monetary expense to parents caused by School Certificate by advising students who have scored consistently low marks in certain subjects in previous years, to pursue a non-School Certificate course in these subjects. However, other students in their classes will be sitting School Certificate in five or six subjects and therefore the potential still exists for students to judge themselves as failures by comparison.

Students at the fifth form level are approximately aged between fourteen and sixteen and a half years. They are therefore within the adolescent stage of development. According to Elkind (1968) this stage is characterised by idealism, egocentrism and a quest for self confidence and a "true sense of self". Adolescents are assumed to have developed the cognitive operations delineated by Piaget's formal operations stage, and Elkind (1968) suggests that these capabilities are needed for and used in the formation of a self-concept. Fifth formers are moving through a stage where they are very conscious of themselves and of the reactions of others. They are constantly gathering "critical evidence to support the developing self-theory" (Okun & Sasfy, 1977). This evidence is built into or alters the constructs or facets of "self", such as desirability or competence, that combine to form a holistic self-concept. Where the

evidence is of failure, the self-concept will include negative constructs and when/if compared to an ideal will be found wanting.

A negative self-concept can affect behaviour and learning in a number of ways. It has been linked to juvenile delinquency and minor crime,(Larson,1988) and teenage pregnancy (Neilson,1982), truancy (Lazerson, Foster, Brown & Hummel, 1988) eating disorders (Thornton & DeBlaisse, 1989), depression and suicide (Hodgman & Roberts,1982), low academic attainment and/or dropping out of school. Students with learning disabilities have been shown to form low academic self-concepts at an early age (Chapman & Boersma,1979) and some research shows that this may lower self-concept as a whole. While the concept of learned helplessness has been applied to explain the lack of effort expended by some 'failers' in some situations and it becomes obvious that they feel they do not control the outcomes of their behaviour. Research has shown that depressed adults have generally low self-concepts marked by feelings of incompetence and undesirability and hold to the ideas that there will be little improvement for them in the future and that there is little they can do to change things (Akisal & Mckinney,1973). Chapman, Silva and Williams (1984) showed that depressed children, aged nine had low academic self-concepts.

It seems depressed adults and children have affective characteristics that are similar to those of LD students. It may well be possible that depression is an outcome of continued school failure especially at a time when school success is very important. Much research on adolescence has focussed on the relationship of learning disabilities with juvenile

delinquency, dropping out, hyperactivity and low peer acceptance, (Bachara & Zaba, 1978; Bryan, 1976; Hartzell & Compton, 1984). Now all of these behaviours or reactions are also considered to be 'depressive equivalents' (Hodgman and Roberts, 1982) in children and adolescents and symptomatic of depression. However little research has examined the coincidence of learning disabilities and depression in adolescence. The goal of this study is to investigate the link between depression and learning disabilities by comparing the incidence of depression in a group of students labelled as learning disabled in Chapman's 1985 longitudinal study with that in a group of normally achieving students

CHAPTER TWO

Review of the literature

This section will review the development of the major theories in the fields of learning disabilities and depression. Particular attention will be given to the relatively recent theories describing the etiology, symptom and consequences of depression in children and adolescents.

Adolescence is a time when identity, self-esteem and self-concept are important as indicators of behaviour and achievement. Conversely, these are vulnerable to change by events and people significant to the adolescent. Research linking self-concept and its development to depression and/or learning disabilities will also be reviewed.

Learning Disabilities

The concept of a child having a learning disability has arisen from the need to explain the school failure of some children in the absence of any obvious physical or psychological impairment. The initial definition of the concept evolved from the medical research of the immediate post-war years which related particular disabilities to damage in certain parts of the brain. Strauss and Lehtinen (1947) developed the notion that a child who showed similar dysfunctions to some war victims -- for example, perceptual difficulties, perseveration and conceptual disorders -- could also have suffered brain damage which although insufficient to

cause mental retardation, is the cause of the learning difficulties. This they supported by demonstrating that many of the children they were working with had minor neurological signs, such as poor balance. The term "Strauss syndrome" was later used to limit the stigma and etiological association of the phrase brain damage. Stevens and Birch (1957) disagreed that all children with 'learning disabilities' did have brain damage and supported their argument by showing the variation among their clients. While some children had brain injuries, they did not have the learning problems, and conversely some children with learning problems had no neurological signs. In 1966 Clements reviewed the literature on Strauss syndrome. He proposed the term minimal brain dysfunction (MBD) as more descriptive of the source of the children's learning difficulties and continued to support the link between the observed learning and behaviour problems and the complexity of brain functioning. He listed 99 symptoms that he considered to be indicative of MBD and identified the 10 most common as 1. hyperactivity; 2. perceptual-motor impairments; 3. emotional lability; 4. general coordination deficits; 5. disorders of attention; 6. impulsivity; 7. disorders of memory and thinking; 8. specific learning disabilities; 9. disorders of speech and hearing; 10. equivocal neurological signs and EEG irregularities.

His term has had considerable acceptance and is still used today, especially by the medical profession, to denote those children, who despite 'normal intelligence' show learning problems which involve impairments in perception, conceptualization, language, memory and attention, impulse or motor function (Clements,1966).

The work of Clements highlighted two features which have continued to receive inclusion in many definitions of learning disabilities. These are 1. that there is a difference between achievement in a certain area and the expected level of attainment; and 2. that it is due to an obscure organic dysfunction in the child. The actual phrase 'learning disability' was introduced by Kirk and Bateman (1962) to direct attention away from the medical aspects of the phenomenon and onto the educational. They initially defined a learning disability as a psychological processing disorder in speech, language, reading, writing, and arithmetic which was not attributable to mental retardation, sensory handicapping conditions or cultural factors. This definition was later revised to include the discrepancy factor (between achievement and expectation or potential).

The effect of labelling the concept in this way was that it was now easier for those concerned with teaching and learning to identify both the existence of such children and a lack of facilities for their treatment. With the exception of drug and diet therapies for hyperactivity the medical approach had not led to any widespread treatment practices.

The redefinition in educational terms created a new category of children with a need for remedial practices that differed from those of either the mentally or physically handicapped. In the USA, the 1960's saw the growth of parent and teacher groups pushing for government recognition of the learning disability concept and for financial support. In 1969 official recognition eventuated and the *Children with Specific Learning Disabilities Act* accepted the definition formulated by the National Advisory Council on Handicapped Children (NACHC) This

definition was used again in the USA in the passing in 1975 of the Education for All Handicapped Children Act and reads:

"The term 'children with specific learning disabilities' means those children who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Such term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps of mental retardation, of emotional disturbance, or environmental, cultural, or economic disadvantage."

This definition introduces two more features common in the classification of LD children. These are the inclusion of the final clause which excludes from remediation of a learning problem those whose under-achievement has alternative identifiable origins, and the use of the term 'specific' learning disability. While many writers use this phrase synonymously with the more general sounding learning disability, Cruickshank (1972) suggests that the specificity refers to diagnosed perceptual problems. This is probably due to the fact that the definition was assembled at a time when perceptual-motor ability

training programs had evolved and were popular. The intention behind the use of the word 'specific' may have been to convey a boundary to the disability as this definition only implies a discrepancy from potential by excluding mental retardation as the cause.

Although this definition has had official sanction in the USA since 1969, controversy has continued about the concept. A survey of 42 States by Mercer, Forgnone and Wolking (1976) revealed that only 19% of them were using the definition without modification and 43% of the States were not using it at all. Of these, 16 had formulated their own definitions. This variation mostly represents the degree of importance given to the four features of the definition discussed here. Some states more closely defined the discrepancy factor while others actually operationalised this factor even when it did not appear in the state's definition. Over 50% of the states excluded children from LD classification if they fitted into other areas of exceptionality. Disorders in 'processing' and 'academic' functioning were emphasised in 75% of the definitions. The use of different definitions must ultimately affect the incidence figures and therefore the funding and resource allocations. More recent figures quoted in American studies (e.g., Shinn, Tindal, Spira, & Marston, 1987) state that there are now about two million students categorised as learning disabled. They also note that fiscal policies were starting to influence the conception and definition of learning disabilities in such a way that fewer students would be eligible for remedial assistance. In California, such a 'fiscal' definition reduced the percentage of students eligible from 5% to 2-4% of the population.

Evaluative research on the needs of children with LD and programs designed to meet those needs has served to emphasise the wide variation that exists under this umbrella term and has resulted in new definitions. Hammill, Leigh, McNutt and Larsen (1981) explain the formulation of a new definition for the National Joint Committee for Learning Disabilities (NJCLD).

The definition states:

Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g. cultural differences, insufficient / inappropriate instruction, psychogenic factors), it is not the direct result of those conditions or influences.

This definition makes two major changes. It removes the word children and by doing so, simultaneously recognises that learning disabilities can persist and allows older students, adolescents and young adults access to services from which they were previously excluded by definition. It may

also mandate the expansion or setting up of programs for LD teenagers in areas such as vocational and social skills which research suggests is necessary (Bryan, 1978; Deshler & Schumaker, 1983; Kendall, 1981). It also removes the term "psychological processes" which was seen as causing much debate and polarisation in remedial approaches (Hammill et al; 1981). It does, however, hold firm to a belief in minimal brain dysfunction as the cause of learning disabilities, and in this respect it differs from other recent conceptual approaches.

Vernon(1979), writing on the reading disabled, concluded that the danger of such a label is that it implies membership of a homogeneous group. Others (e.g., Ross, 1976; McIlroy, 1976) maintained that maximum usefulness can be had by defining a learning disability with the focus on the educational achievements and needs of a child, regardless of the possible cause. Farrald and Schamber (1977) took this stance and proposed this definition:

Learning disabled children are those children who in the absence of extreme intellectual, visual or auditory impairment, consistently fail to meet the needs of the curriculum to which they are assigned, and whose unique learning characteristics require extensive remodelling and reconstruction of teaching interventions.

Elkins (1983) takes an even stronger view and suggests that children are not learning disabled but teaching or curriculum disabled by a mismatch between the methods and materials used in instruction and the learning

styles and cognitive stage of the child. The contrast between this and the view held by the NJCLD that a learning disability is intrinsic to the child underlines the questions that continue to exist about the etiology of learning disabilities.

The use of a variety of definitions in the classification of children as LD affects the assessment of the incidence of learning disabilities in the USA. Figures reported range from one to thirty percent of the school population (Lerner, 1981). Walsh (1979) reviewed European and British studies on LD prevalence and found a range from 2% (Austria) to 15% (some parts of Britain). These percentages represent large numbers of children and a considerable investment. Interwoven with classification is the operationalisation of the definitions and the assessment procedures that are used for referral and diagnosis.

The obvious reasons for referral are a continuing lack of progress in at least one school subject (often reading), hyperactivity and attention deficits. These can be seen as subsumable under the discrepancy notion in the definition and could lead to an immediate assessment of present status and an individualised plan of intervention in the appropriate area(s). Chapman (1985), however notes that the testing which follows a school referral is often concerned with the confirmation that a disorder exists and that some tests, for example, the Illinois Test of Psycholinguistic Abilities (ITPA) and the Bender test, are included to produce evidence of minimal neurological problems. He comments "that the results of these tests do not offer valid solutions for actually dealing with the difficulties presented by the child to the teacher". (p 19)

The eventual classification as LD and placement may result in children with LD receiving similar intervention to children identified as educationally mentally retarded (EMR). This is evident in surveys of the learning disabled samples used in published research over twelve years (Harber, 1981; Kavale & Nye, 1981). While many researchers described what their sample was not (exclusion cause), the attention given to what they were was less specific. The discrepancy clause was most often described in terms of comparison with age or grade levels. Although average intelligence is considered a pre-requisite for LD designation by most definitions, both surveys found that few researchers specified the intellectual level of their sample. Not only is it possible that their samples could have alternative designations, but comparisons made to a normally achieving group in some studies are less meaningful if some effort has not been made to establish some psychometric similarities between the groups. Harber (1981) concluded her survey with a discussion on the need for criteria for classifying and selecting LD subjects for research to assist the interpretation of results.

While the lack of one clear definition has already caused some ambiguities Harber (1981) wants future research to result in a "more orderly accumulation of knowledge". At present the LD category is subject to abuse and may serve as a "dumping ground" (Larsen, 1978) for children whose problems will not necessarily respond to school-based interventions.

These are important considerations for learning disability research in New Zealand. At present (1992) no official definition of the concept of a learning disability exists and there are no special remedial facilities for children with LD. This situation has continued for over a decade despite persistent lobbying by the New Zealand Federation of Specific Learning Disabilities Associations (SPELD), an independent organization which trains tutors who provide one-to-one remediation for children who are considered to have a learning problem caused by MBD.

Chapman and van Kraayenoord (1985) summarised the assistance that is available in New Zealand schools for children called "educationally retarded". While the situation has improved for younger students with the introduction of the reading recovery programme (Clay, 1979; 1987) into most schools, there is little assistance available for older students. By the time children reach secondary school, the intervention they receive will be limited by time and subject. Remedial reading continues for adolescents with problems in this domain, but few programs exist for other areas such as mathematics. Teenagers, whose underachievement is pervasive, may be directed into work experience classes where the curriculum includes vocational and social skills. While these students may have learning disabilities in that there is a discrepancy between their 'potential' and their performance or between their performance and that of others of the same age, this type of placement usually follows from concomitant behavioural or emotional problems.

Because of the invisibility of learning disabled children in New Zealand it is difficult to obtain incidence figures. Chapman (1985) reviewed

figures collected by Walsh (1979) and along with his own estimates made from his Manawatu research reports the incidence to be within the range of 5.3 -12.7% of the school population. If the national school population is taken to be 700,000 this range represents a considerable number of children about whom little is publicly known, and for whom the official sponsored intervention is minimal.

Researchers of learning disabilities in New Zealand are proceeding using definitions from overseas. In discussing the future of the field in New Zealand, Chapman and van Kraayenoord (1985) recommend using the Farrald and Schamber (1977) definition for remedial purposes as it directs attention to intervention and avoids limits imposed by possible etiology. However in an effort to achieve psychometric similarity (as deemed advisable by Harber) among the groups whose progress was measured over three years, Chapman's research included two 'discrepancy factors'. As part of his longitudinal study (begun in 1982 and published in 1985) Chapman described a process of operationalizing the concept of a 'significant discrepancy' for New Zealand schools based on the standardised Progressive Achievement Tests (PAT). These tests were given annually to all children aged approximately 7-15 years (Standard 1 to Form 4) throughout New Zealand at the time of the study. The goals of the PA testing were the assessment of achievement in listening comprehension, reading comprehension and vocabulary, mathematics, and study skills to provide classroom teachers with information on the students in their classes and the provision of national statistics. To achieve a discrepancy which compared favourably with those used in the studies surveyed by Kavale and Nye (1981), Chapman converted the age - adjusted PAT percentile results to an estimated grade level and chose a

cut-off point at a level that is one standard deviation from the national mean. As Chapman's study was a comparative one, an intelligence component was also included in the procedures used to identify the learning disabled sample, that is their achievement was to be lower than expected from a measure of 'potential'.

Although Chapman's 1985 work has only operationalised the definition in a few areas, his approach may give a foundation from which identification of LD students in New Zealand can grow at least for research purposes.

The students with learning disabilities participating in the present study are those who were identified by Chapman (1985). Since identification, the group has dispersed to seven different secondary schools and the remediation they have received will have varied. This group, in common with most groups of learning disabled students, was already displaying some negative affective characteristics in 1982. As the achievement data received in 1984 indicated that few have overcome their learning difficulties, a follow-up study on their present emotional status is most timely and has important implications. It would seem unlikely that students who have continued to face problems would be now feeling better about themselves and in fact their self-perceptions are likely to have continued to be low. One serious outcome of on-going negative beliefs about self is the development of depression and as this syndrome is now being more commonly associated with both adolescent and learning disabled populations, it is possible that some of these students are at risk for or have already developed depression.

Depression

Bloom (1976) includes affective factors of the student as one of the three main input components which influence learning. Students spend six hours per day at school, accumulating information about the interaction of self and school (and performance in particular). This affects the formation of personal attitudes and characteristics, such as self-esteem, anxiety, expectation, drive, need for reinforcement, value accorded to school activities, which in turn increase or decrease motivation, one of the most important factors affecting learning. Where students have extreme problems, affective disorders can develop. Phobias and anxiety neuroses have been recognised as factors which interfere with the learning of some school students. Depression, however has seldom been considered as a factor affecting or resulting from school performance. Yet, as another affective disorder, there is no reason why this should not be so.

Until recently, depression has, because of etiological arguments, been considered to be a disorder of adulthood. It is a disorder which is characterised by generalised negative expectancies of self, the world and the future (Beck,1967). Depressed individuals typically have feelings of unhappiness, hopelessness, apathy, and worthlessness which result in the deactivation of the person even though much of the blame for their depressed or dysphoric state they allocate to themselves. In this respect depression contrasts with anxiety-related disorders, which are considered to increase the activity of the sufferer. Major depression is a continuing source of concern to doctors and therapists because, despite increased

understanding of the symptoms and signs of depression and more drug and therapeutic interventions (Beck, Rush, Shaw and Emery, 1979) there has been no corresponding decrease in the suicide rate. Suicide is taken to be the lethal outcome of depression and therefore an indicator to the incidence of depression. The American Academy of Pediatrics Committee on Adolescence (1980) has referred to figures which indicate that the teenage suicide rate is increasing, not only among older adolescents (15 -19 years) but also amongst the 10 -14 year old group. The total suicide rate for the USA is now about 5000 deaths per year and data shows that many more teenagers attempt suicide but do not succeed. While it seems that some young people may attempt/commit suicide impulsively in anger and without any observed period of depression, retrospective analysis of the behaviour of many teenage suicides reveal many of the recognised signs of depression. Counsellors and teachers in schools (including special needs teachers) are now being encouraged to learn the behaviours which can signify depression in students so that appropriate intervention can be arranged (Maag, Rutherford, & Parks,1988). Major depression is included by Forness and Cantwell (1982) in a list of psychiatric diagnoses with which school personnel should be familiar. The list is comprised of syndromes that school students may present and which are accommodated to when individualised educational programs are planned. The authors have also listed the educational categories under which students with psychiatric disorders may be mislabelled and located or directed to for appropriate intervention. In the case of major affective disorders (manic and depressive) the educational categorisation was divided among behaviour disordered, seriously emotionally disturbed, learning disabled or

ineligible (in this order). The concern about teenage suicide is also acting as a spur for more research into the factors which seem to predispose a child to depression, act as precipitates to depressive mood or suicide or characterise the expression and pattern of depression (Asarnow & Bates, 1988; Battle, 1980; Baron & Joly, 1988; Robertson & Simon, 1989).

Adolescent depression is no longer considered to be transitory and may even be a precursor to major depressive episodes during adulthood (Kandell & Davies, 1986).

Australian and New Zealand statistics, collected by those working in the fields of adolescent problems and mental health, show the same trends as in the United States. In Australia, the suicide rate for males aged 15-19 years, increased from five per 100,000 to 12 per 100,000 between 1960 and 1980 with the highest incidence in affluent suburbs. The rate of attempted suicide to successful suicide has been estimated at 100:1, with seven times as many adolescent girls attempting suicide as boys (Bennett, 1984). Kosky (1982) gives Western Australian parasuicide figures for young adolescent girls which show a dramatic increase from 1.3 per 10,000 at age 12 to 13.7 per 10,000 at age 14.

In New Zealand, 10% of the 1980 deaths (n = 332) labelled as suicides were carried out by young people aged between ten and nineteen years (Taylor and Cummings, 1985). In the years 1970 - 1977 the rate of suicide was 5.6 per 100,000 for 15 - 19 year olds but by 1982 this had risen to 17.5 per 100,000 for the males of this age group. The rate for the females was much lower - 3.2 per 100,000 (Mortality and Demographic Data, 1982). The Department of Health lists suicide as the fifth major cause of death in New Zealand for 15 - 24 year olds.

Parasuicide figures from New Zealand studies also show an over-representation of young people. One hundred and fifty-six of 345 poisoning attempts were carried out by people aged 15-24 years and 99 of these were female (Large, 1978). In a Wellington study the highest rate for non-fatal attempts at suicide was 30 per 10,000 for 15-24 year old females (Howell, White, Monigatti, Pida, Rawnsley, & Webster, 1980). Media attention has recently focussed on these rising rates and Eye Witness News in August, 1986 stated that New Zealand's latest figures imply that one teenager per week commits suicide and 30 teenagers per week try. In a 1988 interview with a Dominion reporter, Dr P. McGeorge, an Auckland psychiatrist was quoted as saying that 10% of the teenage school population had severe self-concept problems. It has also been noted that suicide and suicide attempts have been made by much younger children (French, Steward & Morrison, 1979).

The psychoanalytic view that depression is caused by conflict between the ego and the super-ego has been reviewed since super-ego is not fully formed until late adolescence. This traditional conflict explanation can therefore not be applied to childhood and other theories of depression have been proposed to explain the incidence of depressed behaviours and symptoms observed during childhood and adolescence. Kaslow and Rehm (1983) discuss three other perspectives.

1. The concept of 'masked' depression or depressive equivalents. This postulates that depression exists 'internally' but that it is displayed in the form of a variety of childhood behaviours that typically cause concern. Truancy, delinquency, school failure and learning disabilities are included among these depressive

equivalents. This position has largely been abandoned although Malmquist (1983) still holds that there may be a group of depressed children who express their dysphoria and discontent through these 'overt' equivalent indicators because they are developmentally more orientated to doing than to thinking. Kaslow and Rehm (1983) point out the awareness that other forms of psychopathology may co-exist with depression but that, there is a need for a definition independent of these behaviours. Hodgman and Roberts (1982) concur with this stance, stating that some features of adolescent depression, truancy and vandalism are not typical of adult depression, but neither are they 'masking equivalents' "since the adolescents' depression is directly identifiable by questioning". (p 122)

2. That depression does not occur in childhood.

Lefkowitz and Burton (1978) questioned the existence of childhood depression on the grounds that many of the criteria, for example crying (indicating dysphoria), sleeping and eating disturbances, occur frequently in the population, that many of them are transitory in nature and dissipate in time and that therefore no intervention is necessary. Their stance has been criticised by Costello (1980) because the transitory nature of depression does not lessen its aversiveness or its effect. Their papers did however draw attention to the point that the conclusion that a child is depressed needs to be made from the presence of a cluster of relevant behaviours. Instruments since designed to diagnose depression in children over the last 15 years reflect this and also the consensus of opinion that represents the third perspective.

3. That depression in children parallels that of adults.

The American Psychiatric Association (APA,1980) has designated the following criteria for a major depressive disorder to be diagnosed in children: the child must have a dysphoric mood that is prominent and relatively persistent, or must have a loss of interest or pleasure in almost all usual activities. As well, four out of the following eight symptoms need to present almost daily for a period of at least two weeks.

1. appetite disturbance or significant weight change
2. sleep disturbance
3. psychomotor agitation or retardation
4. anhedonia
5. loss of energy or fatigue
6. feelings of worthlessness, self reproach, or excessive or inappropriate guilt.
7. diminished ability to think or concentrate or indecisiveness.
8. suicidal ideation, threats or attempts

(Kaslow & Rehm, 1983, p. 29).

This list is consistent with criteria assembled by Weinberg, Rutman, Sullivan, Penick and Dietz (1973) from clinical observations and also with the four sets of complaints that Beck (1967) has used to characterize depression. Hodgman and Roberts (1982), writing on adolescent suicide, have found that "careful observers have found the whole panoply of depressive symptoms, including lack of self-esteem, sleep and appetite disturbances with loss and gain of weight, and somatic complaints in adolescents in percentages surprisingly similar to those in adults with depression" (p 122).

Despite the similarities, childhood depression is not listed as an affective disorder that first appears in childhood or adolescence. It is given a separate parallel status that is warranted by the obvious developmental differences especially cognitive, between children and adults. The etiology of depression in children and adolescents also parallels that of adults. The research is largely retrospective and in many instances relies on self-reports. Akisal and McKinney (1973), in a paper which attempts to link the causes of depression, base their argument on four theoretical orientations .

1. Depression is described as aggression turned inward (Abraham,1948; Freud,1956).
2. Depression is a reaction to the loss of a loved person or object which can include such symbolic objects as self-esteem, values and status (Bibring, 1968; Spitz, 1946).
3. Depression is a reaction to the loss of reinforcement or the source of reinforcement, combined with the rewards of attention or sympathy for this 'helpless' state (Ullman & Krasner, 1969).
4. Depression is a state caused by the depletion of biogenic amines, the chemicals which act as neuro-transmitters (McGreer, 1971).

Lewis and Lewis (1979) and Poznanski (1979), writing on childhood depression specifically, also emphasize the background factors of loss and deprivation during childhood and consider on-going deprivation whether sensory, cognitive, attachment, or social, to be the the major factor in loss of self-esteem and depression. Lewis and Lewis consider that Akisal and McKinney's (1973) loss of reinforcement

conceptualization of depression may explain the effects of deprivation. It may also explain the development of 'excessive emotional dependence' on a dominant other who provides the depressive with the only source of esteem.

Poznanski (1979) also discusses the possibility of a genetic component. This is also mentioned by others as there is a high correlation between overt depressive behaviours in children and parental (especially maternal) depression. It is not clear, however whether these children are genetically predisposed to depression or whether they are modelling the withdrawn or dysphoric behaviours they are exposed to at home.

Beck (1967) has postulated a cognitive model of depression. Central to this is the depressed person's negative views or concepts of themselves. They tend to attribute unpleasant experiences to psychological, moral or physical defects in themselves. In addition to this, they perceive demands on them to be exorbitant and anticipate meeting more difficulties in the future, and more deprivation and failure. Beck (1967) explains this negative set, by proposing that depressed individuals have developed dysfunctional schemas which can be activated by certain events and which then control the perception and coding and reaction to the stimuli surrounding certain events. In the most severe state these schema can completely dominate perception resulting in perseverative introspection and extreme difficulty in attending to external stimuli. This end result is obtained by faulty processing such as selective attending, over-generalizing, distorting, and personalizing environmental events.

This cognitive model then, suggests that depressed individuals display both self-blame and a belief in uncontrollability, a combination which Abramson and Sackeim (1977) term a paradox. In seeking to explain the co-existence of these two factors of depression they compare Beck's (1967) cognitive model with Seligman's (1975) demonstrations of learned helplessness, which has also been proposed as a model of human reactive depression.

Learned helplessness was originally demonstrated by Seligman (1975) with experiments which showed that dogs who had been placed in the "inescapable" shock condition, were subsequently poorer at escaping from "shock" than dogs who had not received this prior treatment. Experiments conducted with undergraduates and (in)escapable noise showed that pretreatment with the inescapable conditions slowed or prevented escape from noise when it was available. The conclusion that helplessness is learnt from previous (perceived) failures and is generalized to the future seemed to explain the negative expectancies held by depressed individuals. It has been given support by the demonstration (Miller & Seligman, 1975) that depressed undergraduates were also slow to escape the noise and was assumed to indicate that depressed people do not expect to find a successful solution, because their previous failures have lowered their self-esteem, their energy and their belief that they can control the outcomes of events. This implies an external attribution set, and is in contrast to research by Laxer (1964) who in comparing depressed and non-depressed patients found that it was the non-depressed who more often blamed others than themselves and that low self-esteem was associated with high self-blame.

Learned helplessness has also been related to the school setting and in particular to academic failure (Chapman,1985; Grimes,1981; Thomas,1979). Learning related learned helplessness occurs when children believe that effort or persistence on a task is unlikely to lead to a successful outcome. Learned helpless children are likely to explain success in terms of luck, task ease or teacher assistance, all of which are uncontrollable or external. Thomas emphasises the importance of both outcome and history in attribution assignment. "The more consistent the prior history of success or failure, the greater is the tendency to explain the events in terms of ability" (p 214). Ability, therefore occupies a unique position, as it is internal (i.e. part of the individual) and yet on an "intentionality" dimension it can be perceived of as uncontrollable and therefore "external".

Learned helpless children can be differentiated from their peers by their behaviour in failure situations, where they demonstrate measurably less persistence to task and verbalize attribution statements related to ability not effort (Diener & Dweck,1978). Learning disabled children, especially adolescents, typically display little persistence and effort on tasks and some research has linked their low motivation to a learned helpless state (Bryan & Bryan 1978; Chapman, 1985; Chapman & Boersma, 1979). The results so far have been ambivalent. Research has shown that LD children, particularly boys do attribute their success to external causes. However, while some overseas research has reported internal (ability) attributions for failure (Chapman & Boersma, 1979; Dweck & Goetz, 1978), the New Zealand study (Chapman, 1985) found that LD children of 11 and 12 years tended to perceive their failure as also due to external

causes. This supports the notion that LD children certainly feel a lack of control or helplessness over outcomes. Whether or not they assume an internal attribution for their failure may depend on the scope of their disability and their perception of the stability of an ability. These concepts may combine forces so that a long-lasting disability may result in the development of the concept of a stable but low general ability. As stable and global attributions for failing lead to feelings of helplessness, and internal attributions lead to the lowering of self-esteem, the consequences for these children are: a belief that they cannot learn; low motivation; low expectation for the future; a loss of self-esteem; and possibly depression. The inclusion of depression is supported by Tennen (1976) who suggests that "depressed undergraduates blame themselves for negative outcomes but view positive outcomes as uncontrollable or a consequence of luck" (p. 848, Abramson & Sackeim, 1977). Abramson, Seligman and Teasdale (1978) proposed a model of depression which hypothesised that the making of stable, global and internal attributions for bad outcomes was a predisposing factor of depression. This was later extended by Seligman, Abramson, Semmel and von Baeyer (1979) to include the habit of making unstable, specific and external attributions for good outcomes as a cause of depression. A 1981 study by Golin, Sweeney and Shaeffer tested this model with a sample of American college students and found evidence to uphold a causal role between global and stable (but not internal) attributions for bad outcomes and depression, and between unstable (but not external or specific) attributions for successes and depression. The cognitive attributes of a group of depressed children aged between seven and seventeen years were examined and confirmed the link between positive outcome and

unstable, specific and external factors but the response pattern to failure was not as consistent (McCauley, Mitchell, Burke & Moss, 1988). Their results do, however, suggest a developmental trend, as "older children endorsed lower self-concepts and a more depressive attributional style than did the younger children."(p.907)

While Thomas (1979) notes that "some (LD) children have been observed who, despite academic failure, retain a positive sense of competence through successful experiences in other areas", a large amount of literature suggests that the affects of a chronic learning disability are pervasive. Research findings on social interactions, self-concept, peer acceptance and social adjustment of LD adolescents (Bryan, 1976; Bryan & Bryan, 1978; Fafard & Haubrich, 1981; Kronick, 1978) indicate that they have considerable social difficulties and problems perceiving an independent future existence. These children learn then, that not only are they incompetent in a particular academic area, but that this affects their value as a classmate or friend and their potential value as an employee.

Self-concept, Identity and Adolescence

The concepts of self-concept and self-esteem relate then to both depression and learning difficulties. Erikson's(1968) psychosocial development theory places adolescence as the time when identity and self-concept are solidified and therefore information about self is particularly important at this stage.

Learning about self from self-observation and from feed-back from others is the basis for the formation of self-concept. Self-concept then, is the view a person holds of oneself, totally in regard to several dimensions. As information is constantly being added to this self-perception through interaction with the environment, self-concept can both control one's interests, attitudes and behaviours to a large extent and be regarded as an outcome. When interactions result in negative self-perceptions, then the self-concept will be lowered. Because the construct of self-concept is holistic there has been some imprecision with the use of the term, and in many instances the terms self-concept and self-esteem have been used interchangeably. Shavelson, Hubner and Stanton (1976) separate self-concept into four main areas: academic, social, physical and emotional. While school failure should be more closely related to academic self-concept and has been shown to lower academic self-concept (Chapman, 1985; Chapman & Boersma, 1979), the social difficulties experienced by LD children may affect non-academic self-concept areas. This may particularly be the case for adolescents whose self-concepts are modified at this time by constant comparisons to perceived ideals (Elkind, 1974).

Up to this stage, the self-concept of a LD child may have been protected and kept positive by the acceptance and support of parents and by participation and success in clubs and sports, even when academic self-concept is lowered by poor academic performance and difficulties experienced with learning. However, during adolescence, the development of a separate identity is accomplished by a deidealisation of parents' opinions and values (Elkind, 1974), by participation in peer

group activities and by the development and taking up of plans for the future, especially employment.

Another developmental concept, closely allied to self-concept, which has been measured, is that of identity formation. The development of a stable sense of self and set of beliefs about themselves in relation to family and the wider community, is seen by Erikson to be the necessary outcome of the psychosocial crisis of adolescence. When teenagers do not form this relatively permanent identity their functioning is characterised by a lack of focus and in many cases there is an inability to settle on a choice of occupation. Based on Erikson's theory, Marcia (1964) has developed a semi-structured interview schedule which is designed to place individuals into one of four categories: identity achievement, identity diffusion, identity foreclosure and moratorium . Placement in a category is determined through determining the adolescents' commitment to or exploration of a particular occupation or belief. If an individual has actively and at least partly independently pursued an idea (and its alternatives) and as a result of this has made a choice, then identity achievement is indicated. When a student demonstrates little concern about and/or little commitment to any particular occupation their identity status is regarded as diffused. Of Marcia's other two categories, foreclosure describes the situation where an adolescent has developed a commitment to an occupation more as a result of others' wishes than their own crisis and search. Moratorium is an intermediate stage where the responses given by the student indicate that they are engaged in an information-seeking process which may lead to either identity formation (with commitment) or more diffusion. A realistic

occupational choice would probably be related to school performance, particularly where there is knowledge that a certain standard of pass is a prerequisite for entry to the training institution. When the knowledge of self is that of a failing learner then, it is possible that identity formation and occupational choice may be delayed or diffused.

If this academic aspect of self-concept is at least equally important as the other aspects, then academic failure during adolescence must assume greater importance (than for a younger child) and the self-image of poor learner due to recent (and past) incompetence will affect feelings about examinations, employment prospects and satisfaction, identity resolution and worthwhileness as an independent person. Indeed, an American study (Sitlington & Frank, 1990) shows that students with learning difficulties were having difficulty in successfully 'crossing the bridge into adulthood'. The criteria for success included: gaining employment; paying at least some of their expenses; and being involved in at least one leisure activity. If the criterion of living independently (from family or parents) was added then success was even less. This study did not investigate affective factors but it is also likely that if adolescents feel that their learning disability is never likely to improve, feelings of hopelessness could also develop. Taking this proposition even further, it may be that students who feel hopelessness about the future and positive change, may not bother to engage in the exploratory procedures that bring about identity achievement. Depression may therefore impede identity formation.

Teenage suicide statistics cite school failure and underachievement

among the precipitants (Eisenberg,1980). As suicide is the lethal consequence of depression, it is possible that there are depressed adolescents among the school population and in particular among the LD population, whose condition goes unrecognised because their symptoms do not attract attention (teenagers are expected to be moody) and they do not seek or receive relevant counselling. Kaufman (1979) relates the changes occurring during adolescence to depression and quotes Jacobson's (1964) stance that adolescent depression is a "pathology of self-esteem" and that an "optimum narcissistic balance is an essential precondition to regulating self-esteem to conform with the reality principle of mental functioning". (p 112)

While some research has linked under-achievement and depression (Eisenberg, 1980; Shore, 1972) this review of the literature found only a few studies that linked learning disabilities and depression. Because depression reduces psychic energy, Colbert, Newman, Ney and Young (1982) have proposed that some depressed children become labelled learning disabled inappropriately. Stevenson and Romney (1984) sought but did not find a correlation between the possession of a learning disability and depression in 9 - 13 year olds. Their study may have been confounded by the 'volunteer ' nature of their sample. Brumback and Staton (1983) pursued the medical model of learning disabilities and have related the possible co-existence of depression and a learning disability to the laterality of cerebral dysfunction. Support for this hypothesis was provided by Brumback (1985) who found that the number of students who were depressed and had a significant performance deficit on the Weschler Intelligence Scale for Children - Revised (WISC-R, Weschler,

1974)) was significantly higher than the number expected by chance. Mokros, Poznanski and Merrick (1989) agree that clinical data suggests that depression and learning difficulties in students commonly co-exist but their attempt to replicate Brumback's (1985) analysis with another sample did not give the same discrepancy result. Rourke, Young and Lenaars (1989) have described a specific non-verbal learning disability which they consider predisposes individuals to depression and suicide in adolescence and adulthood. Their data were collected from clinical case studies and, although it is not widely generalisable yet, it has been taken up as an instance where careful assessment and investment in remediation may prevent such individuals developing the socioemotional consequences that appear to ensue (Fletcher,1989; Kowalchuk & King,1989). Mokros, Poznanski and Merrick, and Livingston (1985) both comment that the linkage between depressive illness in children and learning difficulties needs to be closely investigated. Clarification is still necessary to determine if learning difficulties are being confused with symptoms of depression or whether one is a predecessor of the other. Livingston recommends three hypotheses that need testing for the inter-relationship of the concepts to be elucidated. The second of these, that learning disabled children are more at risk for depression, is the hypothesis being investigated by this study.

As already stated this study is part of a follow-up project on the students identified by Chapman (1985) in his longitudinal study of the affective characteristics of learning disabled children. Information is already available on the academic self-concepts, locus of control, expectations,

and attainment of the sample for 1982 and 1983, when the students were aged 11-13 years. At this time the students in the sample identified as LD had significantly lower academic self-concepts than their NA peers, as measured by the Students Perception of Ability Scale (SPAS) (Boersma & Chapman, 1977) (now renamed Perception of Ability Scale for Students (PASS), Boersma & Chapman, 1991). It is known from data that was collected in 1984 and 1985 that both the group labelled learning disabled and the normally achieving group maintained consistent academic self-concepts over that two year period. Information received from the secondary schools to which these students have now moved also indicates that the students who had learning difficulties have continued to experience difficulties. Because of the data already obtained on affective factors, further testing of these groups of students should be able to determine any direction of change on these affective measures. Of particular interest, is the degree of change in the negative self-concepts held by the LD students when they were younger. Has their self-concept decreased to a level where learned helplessness in the classroom has developed into a more general feeling of helplessness typical of depression? Also able to be tested in this study is not only whether or not the LD students continue to have negative academic perceptions of themselves but whether, if their learning difficulties have continued, this has now permeated to colour other aspects of self, such as self-worth and lowered the holistic self-image that adolescents build as they develop their identity. It is also possible that the identity formation process will be slowed. If the negative perceptions of LD students continue to be domain specific then the likelihood of their learning difficulties being a cause of depression is reduced.

Hopelessness and unhappiness are other elements in depression, and it is also possible that the link between having a learning disability, and depression is based on feelings that the situation at school will not improve and that any positive change is now too late to affect their examination performance or their future employment prospects. Under this hypothesis, it maybe that academic self-concept would remain low and that self-concept and identity formation would occur at a level based on performance. If, however this does not match families' expectations, then students can still feel great frustration and unhappiness.

Many students with learning difficulties would receive some form of remedial intervention for their learning problems either at school or from a privately arranged tutor. Even if this intervention does not totally solve the learning problem(s), it is likely that the attention received will have positive side-effects. Previous research has indicated that the type of placement or intervention received by the LD student has definite affective correlates. Lewis and Adank (1975) found that the more individualised the programme the lower the anxiety level of the student. Hartzell and Compton (1984) found that private tutoring was related to both academic and social success and that work experience in high school enhanced feelings of self-worth. It is possible that interventions of this type as well as causing improvement maintain a hopeful state. Although few schools offer individualised or private remediation, this can be arranged by the parents or the students themselves. The effects of group tutoring common in New Zealand schools are not documented. The amount and type of remediation therefore could be intervening factors between low and normal self-concept; hopelessness and hope;

unhappiness and acceptance; and therefore prevent the co-existence of depression and learning difficulties.

As well as investigating the relationship between the presence of persistent learning problems and subsequent depression, it is hoped that the data will identify other characteristics of depressed students and their perceptions of the causes of their depression. As further data will be collected on the present status of self-concept, academic self-concept and 1986 academic achievement the inter-relationship of these factors with each other and with their precursors will be compared for all students, not only those who have a history of learning disabilities. Differences between males and females will be sought on all measures relating to depression.

Summary

The LD students identified by Chapman in his longitudinal study (1985) already hold some negative affective self-assessments which seem to be persistent and from this review of the literature it can be seen that they constitute a group who are at risk for developing even more negative characteristics. It is important to discover if this same group of students is still feeling negative about themselves and /or in which directions these self assessments have developed . If negative self-assessments of school-related activities and unchanging failure have been generalised to the extent that general self-concept is lowered and a depressed state has resulted, it may be possible to establish what correlates exist both where

depression is found and where it is not. The following hypotheses have therefore been formulated for investigation.

Hypotheses

1. That significantly more LD fifth - formers would be identified as depressed than NA fifth - formers.
2. That the self-concept scores of those identified as depressed would be significantly lower than the rest of the sample.
3. That the academic self-concept scores of those identified as depressed would be significantly lower than the rest of the sample.
4. That the self-concept and academic self-concept scores of those fifth - formers who are both depressed and LD would be lower than those of the other groups.
5. That the students identified as depressed would be less likely to have achieved identity formation and more likely to be diffused.
6. That the achievement of the students identified as depressed would be significantly lower than the rest of the sample.
7. That the LD students who received individualised remediation would not be depressed and would have significantly higher self-concepts than those students who received group remediation or none.

CHAPTER THREE

Methodology

Sample selection

As already stated the students interviewed in this project had already been identified in a previous longitudinal study and the procedures which were used to allocate the students to a 'learning disabled' or 'normally achieving' group were described in detail by Chapman (1985). His identification procedures followed similar methods used overseas and included the definition and operationalisation of two discrepancy factors.

The operationalisation of the discrepancy between present performance and performance 'normal' for age and grade was translated to the New Zealand context by using the only standardized testing that is in existence, the Progressive Achievement Tests (PAT). The results of these are usually expressed as percentiles, and are age adjusted. The PA Tests used in this procedure were reading comprehension, reading vocabulary, listening comprehension and mathematics. For the purpose of achieving a discrepancy which compared favourably with those used in the studies surveyed by Kavale and Nye (1981), Chapman converted the PA Test results to an estimated grade level and chose the cut-off point to be at the performance level that is one standard deviation from the national

mean. This level was considered to be equivalent to achievement two years below grade level and was very similar to the mean discrepancy of 1.76 years found by Kavale and Nye in the North American studies that operationalised the factor.

An intelligence component was also included in the procedures used to identify the learning disabled sample, that is the students chosen for the LD sample had an achievement performance that was lower than expected from a measure of 'potential'. The measure of intelligence used in the study was the Weschler Intelligence Scale for Children – Revised (WISC–R, Weschler, 1974). However because it was not feasible to administer the WISC–R test to the pool of children from which the sample was selected, a short form comprising four sub-tests was chosen. The four sub-tests chosen because of their high correlation with full-scale IQ were Information, Vocabulary, Block Design and Picture Completion. Full Scale IQ scores were then pro-rated from the summed scaled scores by the procedure described by Tellegen and Briggs (1967).

In 1982 teachers were also asked to complete a Pupil Rating Scale (Mykelbust,1981) for a large number of students which contained all of the students identified by these procedures as learning disabled. The teachers did not know which pupils had been 'labelled' by the discrepancy procedures. This scale served to confirm the discrimination of these pupils from students in the NA group as all the sub-scales of this instrument except motor ability and the full scale produced significant differences.

Members of the LD group were defined in terms of having a short-form pro-rated WISC-R IQ score of 90 or above, and at least one PA Test score that was at or below the 16th percentile, and below the lower standard of error of estimate confidence bound (at the 10% level) predicted from their IQ score. All students were being taught in the regular classroom and students with major handicapping conditions and/or social/emotional problems were omitted from the sample as were children with English-as-a-second-language difficulties.

The comparison group of 'normally achieving' students was chosen from a pool of students whose pro-rated IQ was 90 or above and who had all PA Test scores above the 30th percentile. Attempts were made to choose students who matched the LD sample in terms of IQ, socio-economic status (SES), gender and classroom (during Form 1).

These procedures resulted in a sample of 78 LD (48 boys; 30 girls) and 71 NA (42 boys and 29 girls) students being selected by Chapman (1985) and these same students formed the basis of the sample in this project. As two and a half years had elapsed since the previous interviewing, attrition had occurred and 104 students were included in this study. The composition of the 1986 sample of 104 students was analysed to determine any significant differences from the 149 which formed the original group. Reasons for attrition were also sought. This information is summarised below.

Sample size and attrition

The 45 students who were not available for interviewing in 1986 included 27 from the LD group and 18 from the NA group. Thus in terms of the original LD sample of 78, 34.6% were no longer available. For the NA group the attrition percentage was lower at 25%. A chi-square test revealed that the difference in attrition rate between the two groups is not statistically significant $\chi^2(1) = 1.49, p > .05$.

Of the 45 students who were lost from the original sample, 29 were boys (16 LD; 13 NA) and 16 were girls (11 LD; 5 NA). Converting these to percentages, 32% (33.3% LD; 30.1% NA) of the boys and 27% (36.7%; 17% NA) of the girls did not participate in this second project. The overall attrition rate was slightly higher for boys than for girls. However the LD girls had the highest attrition rate of all, though a chi-square test showed that this was not a statistically significant difference $\chi^2(1) = 2.1, p > .05$. Table 1 summarises the attrition data.

Table 1
Sample composition showing the attrition from the earlier study

	Original sample			1986 sample		
	Boys	Girls	Total	Boys	Girls	Total
LD	48	30	78	32	19	51
NA	42	29	71	29	24	53

Of the 45 students who were unavailable, 30 (18 LD; 12 NA) were no longer at the high school at which their third form attendance was recorded. Five students (2LD; 3 NA) were known to have taken up employment and one LD student was known to have moved to another school out of the region. Another nine students, six of them from the LD group, had left school in 1986 prior to June but their destinations (employment or other schools) were not clarified in the school records. Further attrition occurred between June and November with the result that School Certificate data were only obtained for 96 students. Four students had left school. Three of these were from the LD group and had taken up employment. The fourth student was from the NA group and had transferred to an out-of-region school. Three other LD students had no School Certificate data because they were in non-School Certificate classes and, finally one student from the NA group had no School Certificate data because of illness during the examination period.

Sample Characteristics

Analyses were carried out to ascertain whether the attrition which had occurred had caused any bias to develop amongst the factors on which the sample matching had been based. It was established that no statistically significant changes had occurred in the composition of the groups. The factors which were compared were age at the beginning of the first study, Full scale WISC-R IQ, average PAT scores, Pupil Rating Scale scores (from 1982) and SES.

There was however a slight change in the SES rankings which were based

on the fathers' occupations and placed on a scale developed by Elley and Irving (1976). The SES ranking for the LD sample had a median in both studies of 4 (mode 4), while the median of the the NA group moved from 3 (mode 3) in the first study to 3 (mode 4) in this project.

It would seem then that a high degree of similarity still remains between the sample which was interviewed in 1982 and that which was re-assessed in 1986 and it is unlikely that attrition is responsible for any of the noted differences or changes.

Instrumentation

Academic self-concept was assessed with the Michigan State General Self-concept of Ability Scale (GSCA) and the Michigan State University Self-concept of Ability in Specific Subjects Scale (Brookover, Lepere, Hamachek, Thomas, & Erickson, 1965). The GSCA consists of eight five-choice items relating to general perceptions of ability relative to other students and their confidence in completing any advanced formal education.

The Specific Subjects Scale contains questions of a similar style but in this scale they are asked to focus on their four main subjects and rate their competence in these specific subjects relative to other students. Items relating to their expectations in continuing each subject to a more advanced level are also included. The two Brookover Scales have been fairly widely-used measures of academic self-concept with the age group being investigated.

General self-concept was assessed with the Tennessee Self-concept Scale (Fitts, 1965). This scale consists of 100 descriptive items to which students are asked to respond truthfully using a scale so that they portray their own picture of themselves. There are five response categories for each question, so that agreement or disagreement with the item can range from completely true to completely false. The items are able to be also totalled into sub-scales so that it is possible to obtain data relating to Physical self, Moral-ethical self, Personal self (sense of personal worth), Family self, Social self, Identity, Self-satisfaction, Behaviour and Self-criticism. The Tennessee Self-concept Scale is one of the most widely used measures of general self-concept (Wylie, 1979).

Identity Status scores were obtained from the senior researcher of the project who conducted semi-structured interviews with each student based on the schedule originally formatted by Marcia (1964). Deviations from this schedule occurred when it was necessary to clarify ambiguous responses. As each interview was tape-recorded (after permission had been granted) the identity status classification (made without prior knowledge of the student's LD or NA group membership) was subjected to a reliability procedure. Agreement between the two coders was 89%. Occupational aspirations were determined during these interviews and the students' most favoured occupational areas were ranked according to the criteria developed by Elley and Irving (1985).

Emotional status (the presence or absence of depression) was measured with the Diagnostic Interview Schedule for Children (DISC), an instrument developed by the Dunedin Multidisciplinary Health and

Development Unit (McGee, 1986). A copy of the interview schedule appears in Appendix One. This scale was derived from the Beck Depression Inventory (Beck, Ward, Mendelson, Mock & Erbaugh, 1961), and the KIDDIE-SADS SCALE (Puig-Antich & Chambers, 1978) The DISC comprises of questions which relate to aspects of depressive symptomatology identified in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders - III (DSM-III: APA, 1980). Three sections of the DISC were used. The first comprised 25 questions relating to background family relationships, the student's extracurricular interests, and their own perception of their adjustment to school routines. The second section required students to assess their own health and sleep problems, if any. The third and longest section focused on moods and feelings in the present and also those experienced in past time periods.

A series of questions was also designed to obtain information on whether students in the sample were receiving or had received any remedial assistance during their intermediate or secondary school years. These items were appended to the DISC form.

Prior to each interview, students were informed of the nature of the interview and were invited to participate in it. Assurances were provided that the content of the interview would be treated as confidential, and that no names would be used in the analysis or presentation of results. Students were explicitly offered the opportunity to decline participation. It had been decided that since this interview had the potential to arouse unhappy feelings, that should it become apparent

that any student was troubled by issues raised during the interview that this would be further discussed with the student at the conclusion of the formal interview. It had been previously arranged with school counsellors and principals that should it be necessary the researcher would be able to seek additional help for the student from either the school counsellor or a person nominated by the student.

Procedure

The 104 students remaining in the sample were attending the seven secondary schools in the region. Visits to these schools were arranged so that all interviewing was accomplished within six weeks in June and July, 1986. All schools were notified in advance of the students' names and dates of interviewing. This enabled the schools to seek parental and student consent for the students' participation in the project, and for the interviews to be time-tabled in the least disruptive manner for the school and students. The timing of the visits to schools was arranged so that no students were being withdrawn from class time during or immediately prior to examinations. All students had therefore received some feedback on their 1986 academic performance before data collection.

All students were given a brief explanation of the purposes of the research and their cooperation and participation were independently sought even though parental approval had already been received. Their inclusion in the study was explained by reminding them of their participation in the earlier study carried out when they were in Form 1

and Form 2. Students were invited to ask any questions about the research or interviews at any time to settle any anxieties that they may have had. Students were not aware of their categorisation (as LD or NA) in the previous study and as confidentiality had been maintained through the use of identification numbers it was possible to prevent any interviewer bias from occurring as neither interviewer was aware to which sub-sample a particular student belonged.

Each student completed the five questionnaires beginning with the interview on identity status. In all instances this was conducted by Dr. James Chapman. This was followed by each student completing the three written questionnaires, the PASS, Self-Concept of Ability scales and the Tennessee scale. The order in which these scales were presented was counterbalanced using random number tables. Students completed the scales individually and at their own pace. A researcher or an assistant was available to answer any queries as required. After four weeks of data collection the Tennessee scale was introduced with an explanation about two of the items relating to popularity with peers. Many students reported finding the items "I am popular with men" "I am popular with women" puzzling when it related to the same sex as themselves and some students implied they found it offensive. When the written questionnaires had been completed, each student was taken through the DISC by the author. This was followed immediately by the items relating to remediation.

This order of interviews and questionnaires was chosen to minimise possible negative carryover effects from one situation to the next. The

identity status interview was seen as a neutral and non-threatening task for the student and one which gave the researchers the opportunity to introduce the project. The DISC interview was conducted after the written interviews as any negative affect aroused by the personal nature of some of the items, had the potential to contaminate the self-concept data. The questions relating to prior or present remediation were placed last to avoid the interviewers forming any particular bias or expectation of group membership based on the responses made to these items. It was also possible during this second interview to clarify any concerns a student may have developed during the administration of the questionnaires.

Finally, the School Certificate results were obtained from the seven secondary schools in February, 1987. These results were in the form of marks for each subject. As the number of subjects varied among the students an average School Certificate mark was calculated.

CHAPTER FOUR

Results

The results are presented in three sections.

Analysis of Emotional Status

The diagnosis of depression was based on the same criteria as the APA (1980) use. This required a self-report of dysphoria or anhedonia persisting for two weeks or more and the almost daily occurrence of at least four other symptoms over a similar period of time.

There were four categories by which a student's emotional status could be defined. These were *not depressed*, *presently depressed*, *having one or more past periods of depression*, and *being depressed both in the past and present*. A student's inclusion into one of these categories was based on their responses to the questions in the third part of the DISC questionnaire (see Appendix 1). As sleep disturbance is a common symptom of depression and the questions relating to sleep were contained in the section on health and feelings of well-being, responses to these sleep items from section two of the DISC were included in the diagnostic criteria.

The questions were ordered so that students who gave positive responses

indicating that they were sad or bored, were then required to answer those items which defined the duration of the mood. Only those students who gave replies which indicated that their low feelings were persistent completed the remainder of the questions relating to the present time. A similar method was used with the items which referred to moods or feelings experienced in the past year. All students were required to answer the first two questions on their past feelings of dysphoria and/or anhedonia, and again only those whose answers displayed a persistent mood, completed the questionnaire items.

Of the 104 students, 62 (31 LD; 31 NA; 33 boys; 29 girls) gave positive replies that indicated dysphoria or a lack of enjoyment of life at present. Only 26 (12 LD; 14 NA) were asked to complete the whole of this section relating to present depression. One LD girl was defined as presently depressed.

For the section of the DISC relating to students' emotional status of the past year, 62 (32LD; 30 NA; 34 boys; 28 girls) students gave replies which lead to questions about the duration of their feelings. Of these, 27 indicated sadness and boredom of sufficient length that they completed the rest of the questionnaire. Eleven students (6 LD; 5 NA) had sufficient symptoms to be diagnosed as having had one previous episode of depression. One LD girl and one NA boy had been depressed for most of the year, while one NA boy had had shorter recurrent episodes of depression. One of the students to have had a period of past depression was the same LD girl who was defined as presently depressed. The total number of students who are included in the group defined as depressed

was 14, which is 13.5 % of the total sample. Table 2 summarises these results.

Table 2
Summary of characteristics of depressed students

	LD		NA	
	Boys	Girls	Boys	Girls
Past	2	5 ^a	4	3
Present	-	1	4	-
Total	2	6 ^a	8	3

^a these totals also include the presently depressed girl

Because of the small numbers of depressed students in the different categories it was necessary to combine these into one group labelled depressed for all the analyses.

The phi coefficient of correlation chosen to examine the relationships among the variables depressed, not depressed, LD and NA was 0.00759 and was not significant. The hypothesis that more of the LD group would be depressed was not upheld. The pervasiveness of the effects of school failure then, may not be as severe as thought in this respect for

students with learning problems. However, as 13.5% of any sample of adolescents represents a considerable number of students, further analyses were attempted to clarify any characteristics held in common by the depressed teenagers.

Characteristics of Depressed Students

Of the 14 students diagnosed as depressed, all except one boy attended co-educational secondary schools and all the depressed students with previous learning difficulties were at co-educational schools.

There was no significant correlation between being depressed and the sex of the student, and although LD girls and NA boys were the two groups with the higher frequencies, numbers were too small for any further analysis.

The reasons and bases which students gave as the sources of their depression were examined. Thirteen of the students selected unhappiness as the basis of their depression while ten students agreed that 'life had not been fun'. The reasons for unhappiness and lack of enjoyment were probed. The first reason given by the student was labelled the primary reason for depression and any subsequent reasons given were grouped as secondary reasons. No student gave more than three reasons. The data collected were collapsed into several categories. Responses relating to school and learning were grouped together. All problems relating to parents, siblings or shifting house formed the family-related grouping. Problems with peers (of either sex) and

socialising formed a category, as did reasons related to illness (in some cases their own) and death. Lack of sporting success and generalised feelings of boredom or not having anything to do were left as separate categories. The primary reasons given for the dysphoria and lack of enjoyment are tabulated in Table 3, while the secondary or subsequent reasons are displayed in Table 4. As the numbers were so low it was not possible to seek statistically significant differences among these results. School problems were the primary cause of dysphoria for only three students and two of these were from the NA group. This compares with school problems being the cause of unhappiness for 16 other students whose degree or duration of dysphoria was not great enough for their inclusion into the depressed category. Relationships within the peer group and family, and other family problems such as marital disharmony or family illness or death were the causes of depression for 11 of the 14 depressed students. More LD students than NA students gave interpersonal problems as being the main cause of their depressed episode.

Table 3
Primary reasons for unhappiness given by depressed fifth formers

Reason	LD	NA
School Problems	1	2
Illness/Death	1	3
Family Related	3	0
Social Life	2	2

Table 4
Secondary reasons for dysphoric mood given by depressed fifth formers

Reason	LD	NA
School Problems	1	0
Illness/Death	1	1
Family Related	0	2
Social Life	1	1
Sports Failure	0	1
Boredom	1	1

The data were analysed to ascertain which symptoms of depression were the most frequently reported. Persistent problems related to health were reported by only a minority of the depressed students. While most of the depressed teenagers generally considered that they did have problems sleeping, when their responses were more closely analysed very few had problems relating to interrupted sleep and most were reporting that they felt a greater need for sleep. However all the depressed students felt that their concentration was reduced by their affective state. The majority of the students also considered that they were lethargic and that their school work was affected and usually worsened when they were depressed. Other symptoms which were reported by at least 10 of the 14 students were that they had felt "life wasn't worth living", "that they talked less" and "were more irritable, especially with their parents". "Suicide ideation" a very publicised symptom of teenage depression was admitted

to by only six of the 14 students. When the depressed learning disabled group was compared to the depressed normal achieving students some differences were apparent. All of the seven learning disabled said that "they felt no good any more" while this was only a feature of depression for two of the normal achieving group. Similarly "crying" was reported by more of the learning disabled depressed students than normal achieving.

Consistency was sought between the students' responses to the items relating to the reasons for depression and the responses to the background information items which formed the first part of the questionnaire. Table 5 shows the percentage of depressed and non-depressed students which made positive responses to these items.

Because of the low numbers of depressed students in the sample it has not been possible to examine the data for significant differences.

However, it can be seen that there are some characteristics which seem to confirm the data obtained elsewhere about the depressed students and the causes of their depression and also some which may be indicators of differences between depressed and non-depressed students. While most students reported that they had good relationships within their family circle the depressed group more frequently reported that they "got into trouble at home" and less frequently reported "a good relationship with their brothers and sisters" despite the lower number of "family changes" reported. The depressed students were less likely to have involvement in "extracurricular activities" or have "a part-time job" and this is consistent with the high degree of lethargy reported by this group and

with their feelings of not wishing to see friends or be communicative. The higher frequency of reporting by the depressed group that their "school work was left unfinished" for reasons other than lacking the skills to do it also fits with the lethargy symptomatic of depression. Possibly this is also the basis for the greater difficulty experienced by the depressed students in "organizing their school work". It is interesting to note that whereas all the depressed students gave a lack of concentration as a symptom of their depression, in this part of the questionnaire there was little difference between the percentages of depressed and non-depressed students reporting attention problems though more depressed students thought that their "inattention or distractability when it occurred was remarked on by teachers". A higher percentage of the depressed students described themselves as "impulsive" and half of them thought that they were "too active inside". The items relating to activity (or hyperactivity) were often queried by the students and their responses are inconclusive. An examination of the data relating to the perceived duration of overactivity showed that the students in both groups were reporting a perceived persistent trait, not a relatively new and/or temporary state.

Table 5
Background characteristics of depressed students

Characteristic	Percentage of Depressed Student	Percentage of Non-Depressed
Family changes	42.9	54.4
Good relationship with parents	78.6	83.3
Good relationship with siblings	57.1	72.2
Extra curricula activities	50.0	64.4
Has a part-time job	28.6	40.0
Likes school	50.0	56.0
Leaves school work unfinished	50.0	30.0
Lacks the skills to finish the work	0	6.7
Has problems attending to people talking	35.7	27.8
Is easily distracted	64.3	57.8
Acts impulsively	71.5	56.7
Inattention remarked on by teacher	50.0	37.8
Has difficulty organising school work	42.9	15.6
Many reminders received	7.1	12.2
Have trouble waiting in line	7.1	12.2
Are too active inside	50.0	27.8
Finds sitting still difficult	21.4	25.5
Gets into trouble at school	21.4	12.8
Gets into trouble at home	64.3	48.9
Good overall health	85.7	94.5
Often has head or stomach aches	28.5	20.5

Depression and Socio-Economic Background

Because family and personal problems were cited more frequently by the depressed students and reasons for their depressed state and socio-economic data had been collected in the first part of the study in 1982, a crosstabulation was performed to ascertain if there was any outstanding correlation between the presence of a depressed episode and the socio-economic background of the family the students came from. The socio-economic categories used were based on the status of the occupations of the mother or father as classified by Elley and Irving (1985). These data are summarised in Table 6. It can be seen that 10 of the 14 depressed students had fathers whose occupations were classed as category 4 (Skilled workers) or category 6 (unskilled workers). When mothers' occupation is used the pattern is similar with 10 of the 14 depressed students having mothers whose occupations exist in categories 5, 6, and 7, that is the occupations which are considered skilled, semi-skilled or unskilled. Table 7 shows the distribution of frequencies of depressed students against mothers' occupations. Again as numbers are low the interpretation of this frequency data is limited. Nevertheless it does seem that depressed students with professional family backgrounds are proportionally less represented.

Table 6
Occupational status of fathers of depressed students

Occupation Category and Ranking		Depressed	Non-Depressed
No Father	0	0	3
Professional	1	0	9
Middle Professional	2	1	9
Clerical and Technical	3	2	25
Skilled	4	6	26
Semi-skilled	5	1	8
Unskilled	6	4	7
Unemployed	8	0	3

Table 7
Occupational status of mothers of depressed students

Occupation Category and Ranking		Depressed	Non-Depressed
No Mother	0	1	3
Professional	1	0	5
Middle Professional	2	0	0
Clerical and Technical	3	3	17
Clerical Assistants	4	0	9
Skilled	5	3	2
Semi-skilled	6	4	8
Not in paid work	7	3	46

Depression and General Self-concept

t-tests were carried out to ascertain if significant differences occurred between the depressed and not depressed sub-sets of the sample. All the sub-scales of the Tennessee Scale were examined as well as the total self-concept score. There were several significant differences at a level of probability of .05 or less. These occurred in the sub-scales related to students' positive assessment of themselves in the areas concerned with physical self, moral self, personal attributes, family and self, identity and the total self-concept. Significant differences were not revealed in the sub-scales related to social self, satisfaction with self, self-criticism or defensiveness and behaviour. These results are presented in Table 8. The hypothesis that the depressed students would have a self-concept measure significantly lower than students who are not depressed was upheld. Among the sub-scales where significant differences existed were areas which related to the perceived causes of depression. The exception was the area of social self-concept where there was little difference between the scores of the two groups, yet arguments with peers, not having fun, boyfriend/girlfriend problems were the types of response given by several of the depressed students. This may imply that they feel they are worthy to be friends and that the problems they are having are due to external causes.

Table 8
T-test analysis for all subscales of the Tennessee Self-Concept Scale

Scale	Mean of Depressed Students		Mean of Non-Depressed Students		T Value
	n = 14		n = 89 ^a		
	Mean	SD	Mean	SD	
Physical	64.78	10.5	69.50	7.5	2.06*
Moral	61.28	8.2	65.68	6.9	2.15*
Personal	62.85	10.8	67.52	7.5	20.1*
Family	63.57	13.9	69.51	9.05	2.10*
Social	64.36	8.6	65.56	7.7	1.23
Self Criticism	27.43	3.6	27.37	3.3	1.09*
Identity	123.85	13.7	131.32	12.06	2.11*
Satisfaction	112.36	18.9	119.77	13.12	1.84
Behaviour	108.07	15.7	114.06	11.3	1.74
Total	344.28	44.1	365.16	32.2	2.14*

^a one boy refused to complete the Tennessee Self-Concept Scale

* $p < .05$

There were significant differences between the groups designated LD and NA for the total self-concept scores at a probability level $< .001$ and for all subscales except self-criticism at probability levels of .02 or less. Although

numbers were small an analysis of variance (ANOVA) was carried out to ascertain any interaction effects among the groups NA, LD, depressed and not depressed. Although the LD depressed group did have the lowest self-concept score as predicted the interaction effects were not statistically significant. Table 9 displays the means of the comparison groupings.

Table 9
Mean Tennessee Total Scores

Group	LD		NA	
	Mean	SD	Mean	SD
Depressed	327.43	53.8	361.14	25.7
Non-Depressed	353.55	29.9	376.02	30.7

The students who have had both learning and emotional problems have the lowest mean self-concept score while those who have had neither to a discernible degree have the highest. The non-depressed students who have had learning problems have a lower mean self-concept score than the group which had not had significant learning problems but has had at least one episode of depression, but this difference is not significant.

Depression and Academic Self-concept

A biserial coefficient of 0.0095 was calculated and establishes that the correlation of a depressed state with a low academic self-concept was negligible. The hypothesis linking depression and low academic self-concept is not upheld. As t - tests revealed highly significant differences ($p < .001$) between the means of LD and NA groups for both sub-scores and the total scores, an analysis of variance was carried out to identify group and interaction effects. Table 10 gives the Brookover Total Score means for the comparison groups.

Table 10
Mean Brookover Total Scores

Group	LD		NA	
	Mean	SD	Mean	SD
Depressed	125.7	21.5	124.1	18.3
Non-Depressed	116.8	18.9	133.7	18.4

From this table it can be seen that while the non-depressed students who did not have a history of learning difficulties had the highest mean academic self-concept score, the two depressed groups had higher mean academic self-concept scores than the student group which was defined as LD and non-depressed. This interaction effect was not significant at the

.05 level but was approaching significance $F = 2.914, 1,102 \quad p < .09$. There was a corresponding interaction effect with the results on the General sub-score of the Brookover Scale, $F = 3.5, 1,102 \quad p < .063$. This implies that for this group of students academic self-concept was linked much more closely to perceived academic achievement or failure than to emotional state. It also matches the information given by the group on the bases of their depression where school or learning problems were not given as frequently as personal or family problems.

The hypothesis that students who had had both emotional problems and learning difficulties would have significantly lower academic self-concepts and general self-concepts was not upheld, though in the case of general self-concept the expected tendency existed. However the lower mean scores on both scales of the not depressed but LD group suggests that while the effects of depressed mood were not generalised into the academic areas, the effects of persistent learning difficulties were pervading all aspects of self-concept.

Depression and Identity

Data collected on identity status were crosstabulated for the depressed students to determine if depression was interfering with the achievement of identity, a concept closely related to self-concept. However six of the fourteen students (3 boys and 3 girls) were defined as achieving identity and only three were defined as being 'diffused'. This included the one girl who had had both past depression and was still depressed at that time.

The most visible difference was the placement by the measurement means of 4 depressed girls into moratorium but no boys, while the identity of one boy was defined as foreclosed but there were no depressed girls in this category. This data is summarised in Table 11. The inclusion of the presence or absence of a learning disability with depression also did not give any clear pattern, though foreclosure was the least represented category. Again no significance tests were attempted because of small cell numbers and the results give no clear conclusions as to the inter-relationship of the two personal constructs. It does not seem likely however that the presence of emotional or learning difficulties or both are playing a major role in the attainment of identity. The hypothesis that depression in adolescent students would interrupt the achievement of identity formation was not upheld.

Table 11
Identity status of form five students

Identity	Depressed	Non-Depressed
Achievement	6	19
Moratorium	4	28
Foreclosure	1	15
Diffusion	3	28

Depression and Achievement

To compare the overall achievement of students in this study, a formula was developed which computed an average School Certificate mark for each student. The Department of Education's statistics for 1986 for all candidates in New Zealand schools who are in their third year of secondary education and are taking English and at least three other subjects (Y3E3) were used. Marks were converted into T scores on the basis of the Y3E3 means and standard deviations for each subject. A mean score was then calculated from each student's marks across the number of subjects taken in the examinations. This comparison can only be taken as an indication as there are many factors affecting this achievement data such as the number and selection of subjects taken by students, which in turn is affected by differing school policies. Also there was further attrition from the sample between the collection of the data on the affective measures in June and July and the sitting of the external examination in November. Nine students from the LD group had left school or did not sit the examination, and so a degree of self-selection based on performance appeared to have already occurred. Two students from the depressed sample did not sit the end-of-year examinations. Table 12 gives the mean average School Certificate marks for the four comparison groups, LD Depressed, LD not depressed, Normally Achieving and depressed, and NA and not depressed. The results follow the predicted trend. That is the average mark for the 'depressed' students is lower than their non-depressed counterparts within both the NA and LD categories. Students who have had both emotional difficulties and learning difficulties had the lowest mean average mark. The existence of

prior depression had a lesser effect than previous learning difficulties. These results are in the predicted direction but the uneven cell numbers, reduced further in this analysis by population attrition makes the use of significance testing unwise. The emotional status measures used in this analysis were taken 4 to 5 months before the National School Certificate examination and most of the positive responses related to depression which had occurred prior to that time. The emotional status of the students at the time of the School Certificate examination was not measured. The links between prior depression and on-going achievement need to be monitored to elucidate whether the effect is caused by intermediary concentration/attentional factors or whether there is a continuation of depressive episodes.

Table 12
Mean average School Certificate marks

Reason	LD		NA	
	Mean	SD	Mean	SD
Depressed	36.22	7.3	47.22	4.9
Non-Depressed	43.02	7.5	51.22	9.3

Remediation and its Effects

The data collected on past and present remediation were related to the existence of previous learning difficulties, depression and the self-concepts of the students. Reported remediation was categorised according to whether it was arranged by the school or was private tuition arranged by the parents. Whether the student was part of a group or was being tutored individually was also noted as these are aspects of remediation which could effect both academic achievement and affective factors. The areas in which help was received (both past and present) was sought from students to determine whether persistent difficulties such as reading problems were still receiving attention or whether more specific concerns had arisen with a particular subject.

Remediation and students with learning difficulties

Table 13 summarises the information collected on the numbers of students who received help in the past (but since 1982) or had or were receiving assistance in 1986 (present), whether the student was in a group or by themselves and whether it had occurred at school or outside of school hours. Of the 51 students in the LD group, 25 could remember receiving help either at school or privately. Eight of these were still receiving assistance, six of them at school. All of these eight students had been receiving their remediation at school in previous years, six in groups and two by themselves. The two who had received individualised tutoring at school earlier had moved on to individualised private help in

1986 while the other six were still receiving assistance at school, three in a group situation and three reporting individual help. Five other students had begun to receive assistance, two in groups at school and two receiving privately arranged individualised help.

Table 13
Summary of the types of remediation received by students both in 1986 and in the years between 1982 and 1985

	LD		NA	
	Group	Individual	Group	Individual
Past (1982–85)				
School	19	4	3	0
Private	1	1	0	2
Present (1986)				
School	5	4	0	2
Private	0	4	0	5

Of the 13 students still receiving extra help seven were girls. The tendency was for the girls to be getting individual help (five of the seven) either at school or privately. Of the six boys, two were receiving help from a private tutor and two were in groups at school. Reading, English and mathematics were the subjects in which the group with learning problems were receiving extra instruction. Of the LD students who

reported past remediation 80% received remedial reading (40% of the total LD sample) with English and mathematics being the next most frequently remediated subjects. One student in this group had been receiving private instruction in Maori for a number of years. In 1986 the pattern had slightly altered with 38.5% of those receiving help getting extra tuition in mathematics, 30.7% asking for help in English and only 7.7% actually naming remedial reading as the type of assistance they were receiving.

Of the group described as normally achieving, only five of the 53 could remember receiving help in the past but seven had begun to receive help in 1986, the examination year. One girl was receiving help in two subject areas. All seven of the normal achieving group were seeking individualised assistance and six were going to a privately arranged tutor out of school hours. These students tended to seek help in specialist subjects such as accounting, computers and mathematics. One student in this group reported asking for extra help in all subjects. Table 14 gives a summary of the subjects in which remediation was given in 1986 and in the past years 1982 - 85.

All the co-educational schools were providing remediation at the school either on an individual basis or in groups or both. The two co-educational high schools which had received 66.6% of the students who had had remediation in the past, were the schools which were providing the most support. At one school 7 out of 17 (41%) LD students were still receiving help in Form 5. The percentage of LD students attending other co-educational schools still receiving help at school in Form 5 was 100%(1

student), 14%, 15% and 0%. The students attending the single sex schools in this study had all sought private remedial tuition in Form 5.

Table 14
Summary of the subjects in which remediation was received by students both in 1986 and in the years between 1982 and 1985

Subject	Past		Present	
	LD	NA	LD	NA
Reading	20	2	1	0
English	2	0	4	0
Maths	2	3	5	5*
Maori	1	0	1	0
Science	-	-	1	0
Accounting	-	-	1	1*
Computing		-	-	0
All subjects	0	0	0	1
No subjects	26	48	38	46

* one girl received help in two subject areas

Because it had been postulated that students who received individual remediation would benefit in terms of self-concept, t-tests were carried out to seek significant differences between the mean full scale scores of the

Tennessee Self-concept questionnaire and the Brookover academic self-concept scale of the Form 5 LD students in group remediation and those students in individualised remedial settings. There were no statistically significant differences. While the mean Brookover score was higher for the LD students having individualised help, this was not the case for the Tennessee Self-concept Scale. While these results are affected by the small size of the sub-samples, they suggest that there are other factors whose effect on academic self-concept and especially self-concept, is greater than the type of remediation received.

Remediation and depression in students

Of the 14 students who were diagnosed as having been depressed, only two students were receiving any remediation in 1986. One LD student was receiving individualised private tuition in English. This student had not reported receiving remediation in previous years. The student from the NA group who had reported needing and receiving help in all subjects was also in the depressed group. Three others of the LD/depressed group had received help in the past, two with reading and one with mathematics. All had received their remedial tuition in a group setting and two had been helped at school while the third had had privately arranged help. None of the depressed students from the NA group had received remedial help in the past. The inter-relationship among learning problems, remediation, self-concept and depression is unclear and the small numbers of students involved make it impossible to interpret these results with any validity. It is likely that a depressed

student may seek remedial lessons if the learning difficulty is seen as one of the causes of the depression. Conversely it may be that the state of depression interferes with the positive action of seeking help for a learning difficulty as there were 12 LD students who had sought remediation and who had not been depressed. The hypothesis that individualised help would boost the self-concept of a student with learning difficulties and prevent depression can not be upheld by these data.

CHAPTER FIVE

Discussion

In this study, depression was diagnosed conservatively. It is therefore of concern that 13.5% of the Form 5 cohort were defined as depressed or having had depression at least once in the past year. There is no aspect of the selection process of the sample which would suggest that this sample would contain a higher percentage of depressed students than any other. This incidence of depression is similar to the 15% of high school students reported by Forest (1983) to have clinically depressive syndromes and considerably less than some of the estimates of the incidence of depression among adolescent populations discussed by Maag, Rutherford and Parks (1988). However only one of the depressed students had been asked by a parent to seek help for their problems. It would seem then, that there are likely to be many other students of similar age, who also have bouts of depression and that this is largely not being attended to by the adults with whom they have contact. It seems probable that our society has an expectation, that because adolescence is a period of development where significant changes, such as development of sexual maturity and identity formation occur, and greater independence (from parents) may begin, that at times teenagers will be moody, uncooperative, rebellious and bored. In the results it can be seen that 36 of the 62 students who had admitted to feeling unhappy or bored were eliminated as the duration of these feelings were relatively short. Frequent replies

about duration were a few hours or one or two days. One aspect of moodiness or dysphoria then to which parents and school personnel need to be sensitive is the length of time it persists. While short term unhappiness can be considered normal, on-going and pervasive unhappiness should be recognised as abnormal and maladaptive and as a primary symptom of depression. A student with such signs needs to be directed to seek professional advice so that diagnosis and appropriate treatment or counselling can follow. Depression often begins with a precipitating event such as a real or perceived loss but is quickly associated with low self-esteem and feelings of worthlessness. Of particular concern is the link between depression and suicide. Teenage suicide and parasuicide rates are still being reported as rising (Neiger & Hopkins, 1988). As depression is one of the major precursors of suicide, earlier recognition of indicators of depression in adolescents may lead to the identification of depressed students and the prevention of some suicides.

This need for better identification of depression in adolescents has been recently addressed by research. One study (Maag, Rutherford & Parks, 1988) investigated the ability of school personnel to identify characteristics of depression. While it was found that school counsellors possessed good knowledge in the area, they did not have contact with the students unless they received a referral (from teacher or student). Classroom and special education teachers were able to identify some aspects of depression but teachers more frequently reported 'overt' symptoms such as 'acting out' or drug and alcohol abuse and less frequently noted more subtle factors such as low self-esteem. Low self-

esteem and low academic performance were not frequently reported by special education teachers as signs of depression. Another study investigating family communication and adolescent depression and suicide proneness concluded that the adolescents are talking but that parents were not hearing (Stivers,1988). Parent and teacher education in this area is indicated.

Most studies on depression in adults show depression to be more common in women than in men (Nolen-Hoeksema, 1987). While Kashani and Hakami (1982) found a higher incidence of depression in boys in a clinical sample, an earlier New Zealand study on depression in children found no significant difference in the incidence between boys and girls (Anderson, Williams, McGee, & Silva 1987). In this present non-clinical sample of adolescents there was also no significant difference between the occurrence of depression in males and females. Similarly (and also similar to the other New Zealand study) there is no clear association between the incidence of depression and the socio-economic status of the adolescents families.

As there were the same number of depressed students in the group who were defined as achieving normally at school, as in the group who had had learning difficulties, it would appear that having a history of learning difficulties alone has not predisposed students to developing depression in what could be expected to be a significant year in terms of their future. Only one student's self-report lead to an identification of a presently depressed state, yet all students had received feedback from their mid-year examinations. They were therefore aware of their school

performance in comparison to others. The fact that depression was not identified at this time may be explained in several ways. Depression was the only affective state which was measured and it is possible that further research may show that students who have a history of school failure, develop a highly anxious emotional state, rather than a hopeless one.

Secondly, many students in the LD group may have overcome their learning difficulty to the extent that little difference now exists between the two groups. This conclusion however is not born out by the School Certificate achievement results, nor by the differences between the academic self-concept scores of the LD and NA groups. The higher academic self-concept scores of the depressed LD group is inconsistent with their School Certificate attainment which was the lowest of all groups. It may imply a compensatory gesture to conceal the effect that school failure is having on self-concept in general and academic self-concept in particular. A factor here, is that the time lapse which may exist between a depressed episode and the School Certificate examination could be as large as 17 months. It may be that the existence of prior depression has no effect on these students' responses to the questionnaires or on their performance in the examination. Conversely their low performance in School Certificate may indicate that students, particularly those with learning difficulties, may have had further emotional problems which caused communication, concentration and attentional problems which reduced the capacity to learn and to respond appropriately to examination questions. More investigation with a larger sample is required before any generalizations could be made.

Thirdly, the depression of the students in this sample may have little to do with school success or failure. From the reasons that students gave as causes of their unhappiness, school and learning related problems were not often the major cause of the depressed state. Again the numbers are too small for conclusive generalizations to be made but it is supported by Taylor and Cumming's (1985) suicide study in which none of the students who committed suicide cited learning problems as the major cause of their action. Eleven of the 14 students based their unhappiness or boredom on problems they faced within their family (this included loss of a loved relative) and their peer relationships.

The focus on this aspect is developmentally appropriate as students in this age group are seeking identity and autonomy. Major family stress, marital discord, excessively high and inappropriate parental expectations, perceived parental rejection, lack of parental support, parental illness and loss, interpersonal difficulties with friends and are all socio-environmental documented causes of adolescent depression (Robertson & Simons, 1989; Simon & Miller, 1987) and these were all represented in this sample of depressed students. The effect of depression of reducing communication with family and friends which was reported by 13 of the 14 depressed students could well exacerbate problems within the family and so maintain one of the precipitating causes. Similarly, the low energy state reported by the depressed students could also cause problems with parents or peers who may misinterpret the reason for the lethargy.

The greater number of LD students who gave family problems as the reasons for their depression may be explained by the relatively low status

that LD children and adolescents are accorded by their 'teachers, peers and parents' (Dudley-Marling & Edmiaston, 1985). Alternatively, it may result from the presence in these students' overall behaviour of "depressive equivalents" such as aggression, hyperactivity and marked changes of mood associated with the depression, but which are not conducive to family harmony. Kaslow, Rehm and Siegal (1984) found support for this 2 way effect. They report that the more depressed the school students became, the less positively they viewed their home/family environment. The lower social desirability of LD adolescents as friends (as a cause of their depression) is not borne out by this data with nearly equal numbers of the groups citing boring social life or broken relationships with peers (of both sexes) as reasons for unhappiness during the year. There was no significant relationship between the socio-economic background of the students' families and the students becoming depressed which suggests that the precipitating family events are those more concerned with interpersonal relationships than with either economic circumstances or parental expectation.

Another interpretation that could be made is that, when learning difficulties continue for many years, most of the LD students come to accept their lesser attainment at school. Although this is reflected in lower self-concept and academic self-concept scores, the decisions they make about the future are based on this level of attainment - rather than on what could be regarded as their potential. If it is accepted or expected, low attainment may no longer be a powerful contributor to unhappiness or depression. As six of the 14 depressed students had achieved vocational identity this seems to support the findings of previous

research and the accuracy of these students' self-reports that their dysphoric times were more connected with personal problems with family and friends. No students mentioned concern about leaving school or finding a job as contributing factors to their depression. Neither were global (e.g. nuclear war) uncertainty of the future mentioned. Thoughts of suicide were the only indicators that some students found the thought of the future aversive or hopeless.

These results differ here from the Simon and Miller (1987) study of high school students where employment problems were related to both self-esteem and depression in adolescents. Again, during the varying time interval (in most instances) between the students' depression and when the vocational identity and depression measures were taken, potentially disruptive issues may have been resolved. As the girl who was diagnosed as being depressed at the time of the interviews had not achieved a vocational identity, a very tentative link between emotional problem and identity exists.

Lastly the results of this study may have been affected by the questionnaire which was used to diagnose depression. It was observed that students were less puzzled by and gave more direct answers to the section which probes for previous depression. This was particularly noticeable in instances where both sections of the questionnaire were completed. Questions such as 'Have you been feeling so sad that you couldn't keep your mind on your work?' and 'Do you think that your family would be better off without you?' seemed to cause more uncertainty than the questions 'When you felt like that did you find it

hard to think properly or to concentrate?' and 'Have you felt grumpy and cranky with your parents?' Possible explanations are: that students became more comfortable with the questionnaire and the self-analysis involved as the interview proceeded; that the students had more difficulty analysing a present set of circumstances than reflecting on the past; or that the actual phraseology of the questions conveyed slightly different depth of meanings or were easier to understand. The instrument effect, if any, is that less students reported sufficient symptoms to be diagnosed presently depressed and the correlation between depression and learning disabilities is lowered. If a replication study was attempted, it is suggested that the terminology of some items be changed to a more direct form or that an alternative instrument is used for the identification of depression.

Although this study shows that depression and learning disabilities are both readily identifiable in the adolescent population, it does not verify the causal link between having learning difficulties and becoming depressed which was hypothesized. Rather it indicates that, instead of becoming 'depressed' by recurrent school failure, students accommodate to their failure and adjust their expectations for future school performance. While their lower performance may cause them to select and be content with lesser goals (for instance, many low achievers including some in this sample, opt to do some non-school certificate courses), this type of accommodation may also allow identity formation to proceed. Since these self-selected goals are associated with achievement and are being attained, the negative views of self and the world associated with depression do not eventuate.

While learning difficulties are not confirmed as a cause of depression, the students' responses on the symptoms of depression confirm, that the attainment of students when depressed would be suppressed, as lethargy and lack of concentration would combine to interfere with the understanding of new information and the completion of school assignments. Again this points to the need for sensitivity to any changes in behaviour or achievement by teachers and parents. Any depressed student would be more likely to succeed and develop in a more positive way if s/he receives appropriate intervention as soon as possible. The effects of depression may prevent a student from actively seeking intervention and it also seems that while remedial intervention in a particular subject area may affect the perception of difficulty in the academic sphere, there was no generalisation to a broader sense of well-being.

The study also adds to the literature on the measurement of self-concept and academic self-concept and the relationship between them, as well as between each of these constructs and depression and remediation. The different correlations between depression and general self-concept and depression and academic self-concept lend support that academic self-concept is a different construct from self-concept and can be measured independently. While students who had persistent learning difficulties reflected their knowledge of themselves as learners in a lowered academic self-concept score, students who had been depressed and who admitted finding activities related to learning difficult at that time, did not still have a lower perception of themselves as learners. While this finding may merely reflect the low number where learning problems

were the cause of depression, it has some commonality with the results obtained by McCauley, Mitchell, Burke and Moss (1988) in a study that compared the self-report scores from several cognitive motivation and self-concept measures in a clinical sample of adolescents. The students in this sample who were defined as depressed-resolved showed greater similarity to the non-depressed on measures of locus of control, attribution, hopelessness and self-concept. Attributions of success and failure are probed in the academic self-concept self-assessments and therefore the results of this present sample are consistent with this. However the present sample differs in that their self-concept scores remain at a significantly lower level even though most students were not presently depressed. If self-concept recovery has occurred, in line with the results of McCauley et al, then it has not been to the same degree and a negative perception of themselves is persisting.

The reasons for the 14 students' depression are largely centred on one particular aspect of their life. Yet the results on the self-concept measures show that there were many aspects of their self-concept about which they were not positive. Negative feelings about self and family have pervaded the measures associated with physical and moral self. Much research (e.g. Diaz, 1984) has separated the concepts of self-concept and self-esteem by defining self-concept in terms of the roles that people have, while self-esteem is an evaluation of self as a person and expresses an attitude of approval or disapproval of self. As adolescents are constantly evaluating themselves, and the egocentric tendencies of this age group mean that they internalise their feelings about an unresolved problem situation and apportion blame heavily onto themselves, self-

esteem is very powerful. If a problem is not solved, they may generalise their feelings about the specific problem and decide they are stupid, helpless or hopeless people. Their evaluation of themselves (self-esteem) has then pervaded the holistic self-image. Depression in teenagers then may be characterised by low self-concept as well as low self-esteem, and because of the developmental stage it may take longer for self-concept to rise after an episode of depression. Recovery from depression could also be assisted by therapy or counselling, which none of this sample had received. Some of the sample had however received remediation, which is believed to prevent students with learning difficulties from forming low self-concepts. However in this instance, with the very small number of students involved, there were no positive self-concept effects even with individualised tuition which is considered to be the most powerful. As stated previously remedial help appeared to be having little effect on the affective factors which were measured.

Largely because of the small number of depressed students in this study it has not been possible to draw definite conclusions about the precipitants or effects of depression on learning disabled students. However as one of the first New Zealand studies to examine the inter-relationship of these concepts with adolescents at school, it can provide a number of suggestions for future research in the field.

Firstly, more research should aim to discover whether the size of the percentage (13.5) of depressed students in this sample is typical of the New Zealand secondary school population. If so, then, research attention needs to be turned to the identification of these school students as early

as possible so that relevant intervention can be arranged. This in turn would require investigation into the abilities of school personnel to recognise depression in the pupils and the possible need for teacher education about depression and possibly other maladaptive affective states such as anxiety which can interfere with learning. More information is also needed on the recurrence of depression in adolescent populations and whether it is indeed a presentiment of depression in adulthood. Are the causes of depression in adolescence so closely linked to identity formation and crisis that the likelihood of further depressive episodes reduces as self-concept stabilizes?

While this study suggests that students with learning disabilities are no more at risk for depression than other students, a study with a larger population would help to clarify whether this is the case. Little research in New Zealand has focussed on the efficacy, mental health and occupational status of adults who were considered to have learning disabilities when they were at school and this is another area which could be pursued. If indeed, as the reasons given by this sample propose, depression in adolescents is brought about mostly as a result of social and family factors (including illness and death), research could aim to elucidate the best forms of therapy or counselling and referral practices would need to be put in place. Do teenagers require a different form of therapy to adults or can they be referred to adult services. The socio-economic status of the students' backgrounds (as measured by parental occupations) was not a factor which correlated with student depression. Further studies are necessary to determine whether, in the New Zealand context, this family factor is not relevant to adolescent depression or

whether these results were a feature of the very small sample.

Several years have passed since the collection of this data, which did not clarify any relationship among the variables of type of remediation, self-concept, academic self-concept and depression. In the interim, secondary schools have developed more approaches to giving students remedial assistance, such as the incorporation of developmental reading as a Form 3 subject. While such innovations are a recognition of the presence and the needs of students with learning disabilities, more research is needed to determine what is the most effective form of remediation in terms of both increasing academic skills and in protecting students from the affective effects of their failure. Since this data was collected there has been increasing unemployment in New Zealand and an increased pressure on young people at secondary schools to stay at school and earn the school qualifications available. The effect of a longer stay in a potential failure situation on the learning and emotional status of students with learning difficulties brought about by these political decisions needs investigation.

While some of the information gained from larger studies could be used to generalise, for the ultimate good of large groups of students in the future, the plight of the individual should not be overlooked and case studies could be carried out to trace the recovery process in depressed adolescents so that the relative importance of family, social and school factors can be noted. The most important finding of this study was that there were 14 students in seven schools who had been depressed and no student had been recognised as such by any school personnel.

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Appendix One

Diagnostic Interview Schedule for Children (DISC)

Name:.....

Date Tested

(1-4)

(Coding: 0 = No; 1 = Sometimes; 2 = Yes; 8 = not applicable; 9 = don't know)

1. What school do you go to? _____ (6)
2. What class are you in? _____ (7)
3. How about your home – who lives at home with you?

4. Have there been any changes in your family since we last saw you at age 11? (8)
0 2 _____
5. How are you getting on at home? _____
- 5b. Do you get on OK with your parent (s)? 0 1 2 (9)
- 5c. Do you get on OK with your brothers and sisters? 0 1 2 (10)
6. Do you belong to any organised clubs or groups or activities outside school – e.g. Scouts, gym, soccer, cricket, music, ballet? (11)
Specify _____
7. At present, do you have a regular part-time job outside your home, like a paper or milk run, gardening? 0 1 2
Specify _____ (12)
- 7a. How many hours per week does that take? (13-14)
8. (Apart from the above) Have you had any jobs like that outside of home in the last two years? 0 1 2 (15)
Specify _____

9. How are things going at school? _____ (16)
Do you like school? 0 1 2
10. Do you find you often start on your schoolwork and not finish it? (17)
0 1 2
- 10a. If yes, is that because you don't know how to do it? (18)
0 1 2
11. When people are talking to you, do you have trouble paying attention to them? 0 1 2 (19)
12. Do you have a hard time doing your schoolwork when there are noises or other things going on in the room? 0 1 2 (20)
13. Does your teacher often tell you that you're not keeping your mind on your work? 0 1 2 (21)
- 13a. If yes, does your teacher say that to you more than to most other in the class? 0 1 2 (22)
14. When you start something, do you find it hard to finish it, (like playing a game or drawing a picture)? 0 1 2 (23)
15. Sometimes people rush into doing things without thinking about what may happen? Do you do that? 0 1 2 (24)
- 15a. If yes, does that get you into trouble? 0 1 2 (25)
16. Do you have trouble organising your schoolwork? 0 1 2 (26)
17. Does your teacher have to remind you what to do again and again and again? 0 1 2 (27)
18. When you are playing games, do you have trouble waiting your turn or do you push ahead when you are waiting in a line? 0 1 2 (28)
19. Do you run around a lot inside your home or in school when you're not supposed to? 0 1 2 (29)
20. Is it hard for you to sit still? 0 1 2 (30)
- 20a. If yes, is it nearly always hard for you? 0 1 2 (31)
21. Do you think it hard to sit through something when you are supposed to? 0 1 2 (32)

22. If yes to Q10-21, how long have you been like that
(paying attention/running around etc.) months () (33-34)

23. Do you get into trouble much at school for things like breaking
rules or doing things your own way or telling lies? 0 1 2

Specify _____ (35)

24. How about at home. Do you get into trouble at home for refusing
to do what your parents say or arguing and talking back.
How about throwing things or yelling if they make you do something
you don't want to? 0 1 2

Specify _____ (36)

25. If yes to Q23-24, how long has this been happening?
(months)

(37-38)

43. What's your general health been like? _____

How would you rate your overall health?

(Show card: 4 - very good
3 - good
2 - not too good
1 - poor)

(67)

44. Do you get a lot of headaches or stomach aches? 0 1 2 (68)

45. How about your sleep? Have you had any difficulty

45a. Falling asleep? 0 1 2 (69)

45b. Waking in the night and taking a long time
to get back to sleep 0 1 2 (70)

45c. Waking up a long time before you have to
(e.g. one hour)? 0 1 2 (71)

45d. How about needing a lot more sleep than
you used to? 0 1 2 (72)

45e. If YES to 45a-d, how long has that been
happening? (specify weeks) (73-74)

Card No. (79-80)

(1-4)

46. Now, how have you been feeling recently? Over the last few weeks, have there been any times when you felt sad, unhappy, miserable, or down in the dumps? How about moody, empty, or felt like crying?
0 1 2 (6)
47. Have you been able to enjoy things as much as always?
0 1 2 (7)
[If NO to Q46 and YES to Q 47, GO TO Q 58]
If YES to Q46 and/or NO to Q47 - ask: can you tell me why you've been feeling like that? [loss, separation, etc]
-
48. Have you felt like that (sad/low, etc) most days recently?
0 1 2 (8)
49. When you feel like that, does it last a whole day; or a whole morning or afternoon; or a few hours
0 1 2 (9)
50. How long have you been feeling like that? (specify weeks - important to ascertain whether mood, etc disturbance has been of 2 or more week's duration) _____ (10-11)
[If Q50 two or more weeks and YES to Q48-49 continue. Otherwise GO TO Q58]
51. You said you've been (sad/can't enjoy) recently. When you feel like that do you get less hungry?
0 1 2 (12)
51a. If yes, how long have you been like that? (specify weeks) (13-14)
52. Do you often get bored?
0 1 2 (15)
52a. If yes, do you feel bored all the time?
0 1 2 (16)
52b. If yes, how long have you felt like that? (specify weeks) (17-18)
53. Have you felt so tired that you just sit around and do nothing?
0 1 2 (19)
53a. If yes, how long have you been feeling tired? (specify weeks) (20-21)
54. Recently have you felt that you're no good any more? 0 1 2 (22)
55. Have you been feeling so (sad/unable to enjoy things) that you couldn't keep your mind on your work? 0 1 2 (23)

56. Do you sometimes think that your family would be better off without you? 0 1 2 (24)
- 56a. If yes, how long have you thought that? (specify weeks) (25-26)
57. Have you thought about killing yourself? 0 1 2 (27)
- 57a. If yes, when was that? _____
- 57b. If yes, what did you think of doing? _____
58. Apart from the last few weeks, have there been other times during the year when you felt sad, unhappy, low or miserable? 0 1 2 (28)
59. Have there been times during the year when you were bored or felt that you couldn't have as much fun as usual? 0 1 2 (29)
- 59b. If YES to Q58 or 59, can you tell me about it?

- [Try to ascertain whether particular episode in the past year (2 or more weeks) recurrent episodes or most of year for weeks on end.]
- Code 0 = not depressed
1 = past episode (2 or more weeks)
2 = recurrent discrete episodes (30)
3 = most of year
60. When you feel/felt like that, did it last a whole day, or a whole morning or afternoon, a or a few hours? 0 1 2 (31)
- [NOTE: If Q59b - 1,2 or 3 and Q60 YES continue, otherwise discontinue]
61. When you feel sad/low/can't enjoy, do you get less hungry? 0 1 2 (32)
- 61b. If yes, how long would that last (weeks) (33-34)
62. Do you feel so tired that you just sit around and do nothing? 0 1 2 (35)
- 62a. If yes, how long would that last (specify weeks) (36-37)
63. When you feel sad/unhappy/can't enjoy, do you feel you're no good anymore? 0 1 2 (38)

64. When you were like this does/did it effect how well you
did your schoolwork? 0 1 2 (39)

64a. Did your schoolwork get worse? 0 1 2 (40)

65. When you felt like that, did you find it hard to
think properly or to concentrate? 0 1 2 (41)

66. Did it affect your sleep? 0 1 2 (42)

How _____

67. Did you stop seeing your friends? 0 1 2 (43)

68. Hove you felt grumpy and cranky with your parents? 0 1 2 (44)

69. Do you feel like talking less than usual? 0 1 2 (45)

70. Do you think that life isn't worth living? 0 1 2 (46)

71. Do you cry a lot? 0 1 2 (47)

71c. If yes, how long have you done that (specify weeks) (48-49)

72. When you are sad, have you thought about killing
yourself? 0 1 2 (50)

73. EXAMINERS' CODES 1 =
2 =
3 =
4 = (51)

74. CLINICAL RATING 1 2 3 4 5 (52)

75. Any comments (53)

Card No. (79-80)

73. Are you receiving any regular extra help in any subject this year 0 1 2 (54)
74. If yes – in what subject (s)? _____ (55)
75. Do you receive this help at school or was it arranged by your parents? _____ (56)
76. Were you in a group or by yourself? _____ (57)
77. Have you received any regular extra tuition in the last three years? 0 1 2 (58)
78. If yes, in what subject (s)? _____ (59)
79. Did you receive this help at school or was it arranged by your parents? _____ (60)
80. Were you tutored by yourself or in a group? _____ (61)