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The Effects of the ADD Label on Teachers' Attitudes and Expectations

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THE EFFECTS OF THE ADD LABEL ON TEACHERS'
ATTITUDES AND EXPECTATIONS

BY

Cathrine Moreton B.A.(Primary Education)

A Thesis Submitted in Partial Fulfilment of the
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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

Abstract

Attention Deficit Disorder (ADD) is rapidly becoming an important educational issue. Although much research has been conducted into the effects of labelling and teachers' attitudes and expectations on children's academic and social behaviour, little research has been conducted into the relationship between the label 'ADD' and teachers' attitudes and expectations.

The main purpose of this study was to determine the effects of the ADD label on teachers' attitudes and expectations for children with ADD. In addition, the effects of teachers' personal characteristics on their attitudes and expectations for children with ADD, and teachers' perceptions of issues surrounding ADD were investigated.

The study was conducted utilising self-report data collected from instruments consisting of one of two vignettes describing the typical ADD behaviours of a hypothetical child, and a Likert-type rating scale. Primary school teachers exposed to the vignette containing the ADD label formed the experimental group, while those who completed the vignette without the ADD label formed the control group.

The results revealed the ADD label and teachers' personal characteristics had no effect on their attitudes and expectations regarding children with ADD. The results also showed teachers feel they need more resources (e.g., information, teaching strategies, support) in order to meet the needs of children with learning and behaviour disorders such as ADD.

Declaration

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signature:

Date: 3.1.95

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CHAPTER ONE

Introduction to Study

The following section discusses the background and significance of the study, the theoretical and conceptual frameworks, and definitions of key terms. These provide the background for the null hypotheses and research question.

Background

The roles of the regular classroom teacher, of educator, carer, protector, friend, and guide to children in their care, calls for for a delicate balance of several factors. Relevant teacher education and expertise, energy and positive attitudes and expectations, along with provision of and access to resources, are all vital factors in successful teaching.

It is desirable that teachers cater to the individual needs of each child. However, due to human nature, teachers may have differential attitudes and expectations for individual children. These positive or negative attitudes and expectations develop via a variety of external and unseen influences, such as culture, society, parents, media and personal experience.

When addressing the issue of attitudes and expectations, it is necessary to differentiate between positive and negative attitudes and expectations. Positive attitudes are those feelings which predispose one to respond in a positive way to a person or situation, while

negative attitudes predispose one to respond in a negative way. Positive expectations occur when one anticipates a certain positive response, while negative expectations occur when one anticipates a negative response.

Much interest has been shown in the issue of whether teachers' negative attitudes and expectations for individual children affect these children's academic and/or social behaviour. If an individual child has been labelled or if the teacher has been led to believe a label applies to that child, a learning or behaviour disorder for example, does the teacher then form differential attitudes and expectations regarding the child?

The issues implicit in this question have been the centre of much research in recent years. For children in school, the possible negative effects of labelling based on a medical diagnosis rather than an educational focus have been well documented (Lilly, 1979). Research into the effects of induced expectations based on hypothetical data or labels has produced mixed results (Beez, 1968; Claiborn, 1969; Cooper, 1979; Dunn, 1973; Fleming & Antonnen, 1971; Gillung & Rucker, 1977; Jones, 1972; Josè & Cody, 1972; Mason, 1973; Palardy, 1969; Rist, 1970; Rosenthal & Jacobson, 1968). If it is possible that the effects of negative teacher attitudes and expectations could have significant ramifications for children, particularly those with learning and behaviour disorders, the result could be that these children are ultimately not given the same opportunities to succeed academically and socially as their peers.

Significance of Study

In recent times, a relatively controversial disability category has emerged and made a significant impact on the regular education setting; Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD). These terms are used in place of previous terms such as Minimal Brain Dysfunction (MBD), Hyperkinesis and Hyperactivity (Blackhurst & Berdine, 1993; Mercer, 1987). There are two distinct categories within the disorder - ADD with hyperactivity and ADD without hyperactivity (Blackhurst & Berdine, 1993; Mercer, 1987).

In broad terms, children diagnosed with ADD exhibit three main behaviours in varying degrees of severity - inattention, impulsivity and hyperactivity (APA, 1987; Ariel, 1992; Bowd, 1986; Mercer, 1987; Riccio, Cohen, Hynd & Gonzalez, 1993; Shaywitz & Shaywitz, 1991; Reid, Maag, Vasa & Wright, 1994a; Westwood, 1993; Zentall, 1993).

The label of ADD is often controversial due to the perceived lack of structure of the category, the varied nature of the behaviours within the disorder, the apparent prevalence in schools and the lack of knowledge of the disorder by classroom teachers (Kauffman, Lloyd & McGee, 1989; Kirk, Gallagher & Anastasiow, 1993; Reid, Maag, & Vasa, 1993; Reid, Vasa, Maag & Wright, 1994b). The way teachers relate to children with ADD will depend on their knowledge, experience and/or training regarding the disorder, which may influence their attitudes and expectations for the children.

The purpose of this study was to examine the effects of labelling and teacher attitudes and expectations in relation to the label 'ADD', and to identify the effects of teachers' personal characteristics on their attitudes and expectations. Teachers were also invited to comment on perceived issues surrounding ADD.

Definitions of Key Terms

ADD: (Attention Deficit Disorder) refers also to ADHD (Attention Deficit Hyperactivity Disorder) and ADD without Hyperactivity. Current literature refers to both ADD and ADHD. In an attempt to reduce confusion, this thesis will contain the term ADD to refer to all previously mentioned terms. The following is a summary of the criteria from the American Psychiatric Association's most recent diagnostic manual, DSM-III-R (1987): Children with ADD exhibit three main behaviours in varying degrees of severity - inattention (e.g., difficulty in concentrating, failure to complete tasks), impulsivity (e.g., difficulty in organising tasks, acting before thinking) and hyperactivity (e.g., being constantly on the go, unable to sit still, running and climbing excessively).

Labelling: Refers to the description of a child by the use of a stereotyping term (Casey, 1994, p. 30).

Negative labelling: Occurs when labelling has negative consequences for a labelled person (Moreton, 1994).

Attitudes: Evaluated beliefs which predispose the individual to respond in a preferential way (Burns, 1990, p. 271).

Negative attitudes: Evaluated beliefs which predispose one to respond in a negative way (Moreton, 1994).

Expectations: What one anticipates will happen (Moreton, 1994).

Negative expectations: The anticipation of negative responses (Moreton, 1994).

Behaviour disorder: Disorder in which behaviour deviates from a normal range, occurs over an extended period of time, and is extreme in terms of intensity and frequency (Blackhurst & Berdine, 1993, p. 602).

Learning disorder: Disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations (Blackhurst & Berdine, 1993, p. 607).

Theoretical Framework

The purpose of the theoretical framework is to present the underlying theories and assumptions the study is grounded on. It contains discussion of the labelling, teachers' attitudes and expectations theories, and is concluded by the possible implications of these theories for children diagnosed with and ADD issues.

Labelling, Teacher Attitudes and Expectations.

Labelling is a human behaviour in which people attempt to reduce the complexity of their world by building and classifying concepts,

giving them individual meanings (Ashman & Elkins, 1990). Communication in society often results in the use of agreed-upon definitions or criteria which result in the use of categories and labels (Casey, 1994). However, when people are categorised and labelled, the general impression is that of separation of the labelled group from the norm (Ashman & Elkins, 1990). The 'interactive labelling theory' attempts to explain this involuntary separation by postulating that individuals belong to 'deviant' groups (being different in any way from the 'norm' group) because they have been labelled as 'deviant' by others, rather than some inherited characteristic or because others forced them into it (Maltby, 1984).

The attitudes and expectations of teachers and the labels that are used may have a significant impact on children in school. Attitudes are relatively permanent ways of thinking, feeling and behaving toward something or somebody, and these feelings, thoughts and actions reflect a person's perceptions of a situation or person (Travers, Elliot & Kratochwill, 1993). Attitudes either form the basis of expectations or influence them. Expectations occur when people interact with others; they anticipate a variety of reactions. These expectations make it possible for people to predict the behaviour of others and adjust their own behaviour. People's initial behaviour (influenced by their expectations) can cause others to behave in the way people expected them to behave (Good & Brophy, 1991; Rogers, 1986).

Rogers (1986) divides the sources of the expectations people have into two broad categories: from things they believe to be true about certain individual people (e.g., they might expect it to be difficult to speak to someone they know is shy) and from social settings and the

roles of people within them. These expectations can be applied to the people they interact with within social settings even though they may not personally know them. Examples of these types of expectations are a judge in a court being expected to behave in a serious manner, while a car salesman is expected to promote the cars he sells, rather than referring to them in a derogatory manner. Because people may not be aware of their expectations for others, they do not always check the truth or otherwise of these expectations before using them to predict or interpret the behaviour of others (Rogers, 1986).

Educational research has been conducted to attempt to determine the effects of teachers' attitudes and expectations on the academic and social behaviour of children, with mixed results. The 'teacher expectancy effect' postulated by Rosenthal and Jacobson (1968) describes the self-fulfilling effects teachers' expectations can have on children's academic and social behaviour (where children eventually perform according to teachers' expectations). Some studies support Rosenthal and Jacobson's results, but many criticise and contradict it (Beez, 1968; Claiborn, 1969; Cooper, 1979; Crano & Mellon, 1978; Dunn, 1973; Dusek & O'Connell, 1974; Finn, 1972; Fleming & Antonnen, 1971; Gillung & Rucker, 1977; José & Cody, 1971; Mason, 1973; Murphy, 1974; Palardy, 1969; O'Connell, Dusek & Wheeler, 1974; Rist, 1970; Rothbart, Dalfen & Barrett, 1971; Rubovits & Maehr, 1971).

Hamacheck (1987) proffered the following process model of teachers' expectations producing differences in student achievement. Based on what they have heard or read about a student, the teacher develops a certain expectation about the student. The teacher then behaves differently with the student and the student subsequently infers from the teacher's

behaviour that he or she is or is not a good achiever (or some other behaviour) and frequently behaves accordingly. Therefore, if the student understands the meaning of the teacher's behaviour, achievement (or behaviour) may follow the direction of the teacher's expectations (Hamacheck, 1987).

Expectations tend to be self-sustaining. Foster and Salvia (1977) found that expectations result in teachers being alert for what they expect and unlikely to notice the unexpected (known as the 'halo effect'). Expectations may also affect teachers' interpretation so that they distort or disregard what they see so that it is consistent with their expectations. This 'sustained expectation effect' is the persistence of the expectation even if it is not justified (Good & Brophy, 1991; Woolfolk, 1990).

If labels can influence teachers' attitudes and expectations, and the attitudes and expectations can affect the social or academic behaviour of children (possibly permanently), teachers may be even more influential in children's lives than previously thought.

Implications of Theoretical Framework for Children with ADD.

When considering the term 'ADD', a stereotypical image may be conjured up of a virtually uncontrollable, unteachable and disruptive child who may not be entirely welcome in a classroom. This is an example of the negative effects of labelling, attitudes and expectations.

Little research has been conducted to study the effects of the label ADD on the attitudes and expectations of teachers and the subsequent outcomes for children diagnosed with ADD. Madle, Smith and Neisworth (1980) found that knowledge of the label 'hyperkinetic' led to a

perception of more deviant behaviour despite the fact that the behaviour observed was identical to behaviour labelled and perceived as normal. Cornett-Ruiz and Hendricks (1993) found that first encounters between children diagnosed with ADD and teachers had an effect on teachers' judgements but knowledge of the label 'ADHD' did not.

If attitudes and expectations are influenced by the effects of the negative connotations of the label ADD, it may be due to lack of knowledge of the disorder. This issue was addressed by Fowler (1991) who stated:

Effectively educating children with ADD begins when ... educators fully understand the disability and its potential for adversely affecting educational performance, whether that performance is academic, social or both. (p. 2)

This view is supported by the Council for Exceptional Children (1992) which states 'teachers will only develop realistic social and academic expectations for the child with ADD through effective professional preparation and staff development programmes' (p. 21). The results of a recent study by Reid, Vasa, Maag and Wright (1994b) showed that teachers have different perceptions about their confidence in working effectively with students with ADD depending on their training in ADD or their experience with children with ADD, thus lending support to the previously stated stance of the Council for Exceptional Children (1992).

It was expected, that for primary school teachers in Perth, Western Australia, there would be a range of knowledge about ADD. This knowledge could range from 'Never heard of it', to 'Heard the term but don't know what it means', to 'Oh, no!' (a result of brief exposure

to the disorder, probably vicariously), through to knowing about typical behaviours, implications and subsequent strategies to help children with ADD reach their full potential. It was expected that the knowledge teachers have of ADD would influence their perception of the label 'ADD', and therefore their subsequent attitudes and expectations for children with ADD.

Conceptual Framework

The purpose of the conceptual framework is to identify the various aspects of each influential factor integral to the study, and show how they relate. Figure 1 is a diagrammatic representation of the conceptual framework for this study showing the interrelationships between teacher-related, child-related, ADD, labelling and external factors. Each category of factors has many criteria, examples of which are identified in the framework. Each of these factors was identified as a potential moderator variable; that is, variables which could affect the dependent variable, such as the personal characteristics of the teachers.

The framework symbolises how teachers' knowledge and the stereotypes, attitudes and expectations of the label 'ADD' may influence their attitudes and expectations regarding children with learning and behaviour disorders such as ADD. Other teacher factors such as tolerance for misbehaviour, standards and expectations for appropriate behaviour and willingness to teach children with learning and behaviour disorders such as ADD affect their attitudes and expectations for children.

These factors may be affected by the type of school with regards to the

available information of learning and behaviour disorders, and professional support available through literature and in-service programmes. The factors are complexly interrelated, each affecting the other.

According to the process model of teachers' expectations (Hamacheck, 1987) and the conceptual framework (Figure 1), the following is an example of how a teachers' expectations for a child with ADD may develop: A teacher is to have a child recently diagnosed with moderate ADD in his class. The teacher had heard from the child's previous teacher and read in the most recent school report (written by the previous teacher) that the child is often disruptive in class, finds it difficult to get on with other children both in class and in the playground due to impulsive and seemingly irritable behaviour, struggles increasingly with schoolwork, and so on.

The previous teacher was completely frustrated with the child. The teacher professed to be very tolerant and caring, but in actual fact had done nothing at all to adjust the teaching strategies or implement a behaviour management programme in order to meet the child's needs.

The new teacher had never read or heard any information about ADD except the 'information' provided by the previous teacher. He was young, a first-year-out male who still lived at home and had little contact with children apart from practice teaching units in his university course, and he was very unsure of himself and his teaching ability. The teacher either was not able or did not think to seek out educationally relevant information about ADD.

When the nine-year-old boy with ADD turned up to class, he appeared to show no respect for the teacher and be generally disinterested in

learning anything. The boy did not dislike the teacher or his 30-odd classmates, but he infuriated them with his constant disruptions, fidgeting, and lack of work attempted or completed. The normal classroom discipline policy had little effect.

When the teacher eventually asked for help from his colleagues and principal, he found that the general consensus was that 'ADD' was all a 'bit of a farce', and that 'the child's problems obviously stemmed from the fact that he came from a broken home and needed more discipline', that 'there wasn't much he could do about it.' The teacher did not know how to obtain the resources he required to meet the child's needs and simply struggled along in frustration. The child continued to fail academically and his social behaviour continued to worsen to the point where he was expected to be the source of most playground and classroom disputes and served several suspensions from school.

It can be seen when considering the teacher-related factors, that the age, sex, lack of teaching experience and exposure to and knowledge of ADD, attitudes and expectations influenced by the previous teacher and further developed due to the nature of the new situation, self esteem, sensitivity, and lack of professional support were just some of the factors integral to the teacher-related outcomes of the situation. Some of these factors were also associated to other factors, such as the knowledge, stereotype, attitudes and expectations issues integral to labelling.

There were also the external factors such as the attitude of the principal, class size, and social behaviour management policy, and child-related factors such as age, sex, year level, level of academic success and social behaviour, as well as the ADD-related factors such as the

degree and combination of ADD behaviours. All of these individual factors, and no doubt many more, were bearing influence on the situation.

This example demonstrates the complex nature of the effects of labelling, teachers' attitudes and expectations and ADD from a negative perspective. It can be seen from the conceptual framework, however, that if any one or a combination of the stated factors were positive rather than negative, the whole scenario could be drastically different for the child. When considering the conceptual framework, the importance of the teacher and teacher-related factors is clearly demonstrated as being important to catering for students diagnosed with ADD.

Conceptual Framework: TEACHER ATTITUDES AND EXPECTATIONS REGARDING ADD

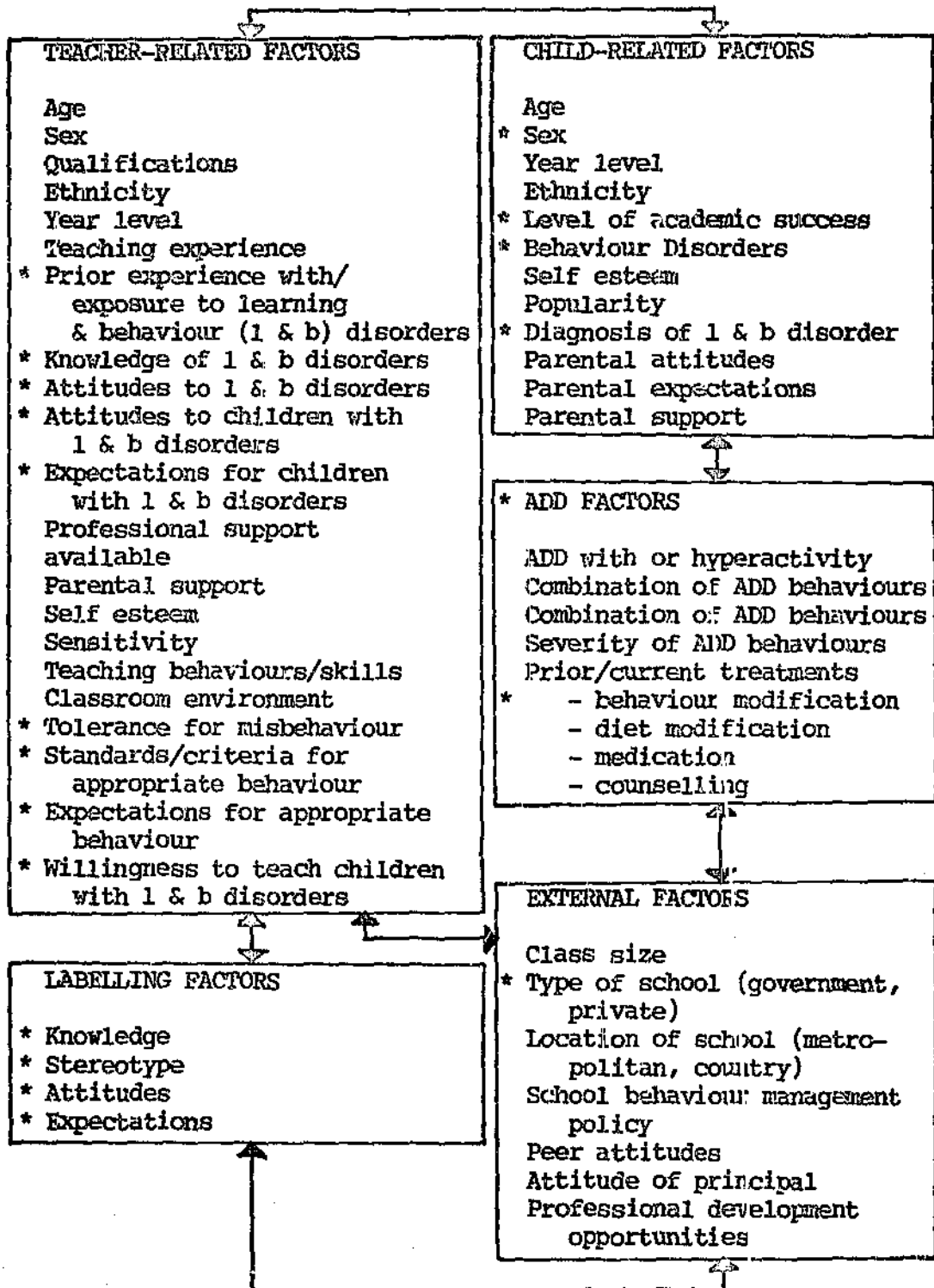


Figure 1: Conceptual framework indicating factors influencing the attitudes and expectations towards children with ADD of primary school teachers in Western Australia. (* factors considered in this study)(Moreton, 1994)

Research Hypotheses

With the purpose of this study being to research the effects of the ADD label on teachers' attitudes and expectations regarding children with learning and behaviour disorders, the following hypotheses were tested.

Main Hypothesis: The label 'ADD' (Attention Deficit Disorder) will influence the attitudes and expectations of teachers regarding children with learning and behaviour disorders, as measured by the instrument Teachers' Attitudes and Expectations: Learning and Behaviour Disorders using a sample of cluster randomly sampled metropolitan primary school teachers.

Main Null Hypothesis: The label 'ADD' (Attention Deficit Disorder) will not influence the attitudes and expectations of teachers regarding children with learning and behaviour disorders, as measured by the instrument Teachers' Attitudes and Expectations: Learning and Disorders using a sample of cluster randomly selected metropolitan primary school teachers.

Subsidiary Hypothesis: Some personal characteristics will influence teachers' attitudes and expectations regarding

children with learning and behaviour disorders, as measured by the instrument Teachers' Attitudes and Expectations: Learning and Behaviour Disorders using a sample of cluster randomly sampled metropolitan primary school teachers.

Subsidiary Null Hypothesis: No personal characteristics will influence teachers' attitudes and expectations regarding children with learning and behaviour disorders, as measured by the instrument Teachers' Attitudes and Expectations: Learning and Behaviour Disorders using a sample of cluster randomly selected metropolitan primary school teachers.

Subsidiary Research Question: How do teachers perceive classroom issues surrounding ADD?

Summary

The background information, significance of the study, definitions of key terms, theoretical and conceptual frameworks provide the backdrop for the research hypotheses and research question for this study. This section has set the scene for the review of literature of related research, and ultimately, the methodology and results of the study.

CHAPTER TWO

Review of Literature

The purpose of this study was to research the effects of the label 'ADD' on teachers' attitudes and expectations. This chapter reviews the literature examining the issues of labelling, teachers' attitudes and expectations, and the effects of these issues on teachers of children diagnosed with ADD. The focus is on the negative aspects of labelling, teachers' attitudes and expectations.

Labelling

It is human to attempt to classify and organise aspects of the environment. People continually build, classify and label concepts in an attempt to reduce the complexity of the world (Ashman & Elkins, 1990). Each labelled concept is given individual meanings and connotations. For example, the word 'cat' may bring to mind 'Siamese, Burmese, moggy, housework, company, filth, independence or laziness' depending on one's own experience. Rarely does a single word mean the same thing to all people.

When people are categorised and subsequently labelled, the overriding connotation of a label is the separation of a group from others in the community or society (Ashman & Elkins, 1990). Labels conjure up negative stereotypical images, generally learned from television, literature and other media (Blackhurst & Berdine, 1993). Consequently, people are labelled and separated in some way from the community or society through no fault of their own (Maltby, 1984).

Labelled children are often viewed according to the generalised stereotype associated with the category for which they are labelled (Lilly, 1979). The individual qualities and needs of children can become lost, and then it is possible for professionals to fail to notice other behaviours which do not fit the stereotype, including worse or improved behaviour (Leach & Raybould, 1977; Pirozzo, 1983). These and other negative effects of labelling are known as 'negative labelling'.

Lilly (1979) identified several vital aspects to the negative labelling of children. Labels are mostly medically-based rather than educationally-based, often making them irrelevant to teachers by providing little information relevant to the teaching instruction required for the child, and can even be seen to help exonerate the teacher from responsibility. A label assumes homogeneity of a group, when within any group there is likely to be variety of behaviours, and some may overlap into other groups (Lilly, 1979).

Negative labels tend to be self-sustaining and often permanent. Perhaps the most damaging aspects are those which imply the problem or cause of behaviour is within the child, and ignorance of the fact that most children are more alike than unlike their non-labelled peers (Lilly, 1979; Westwood, 1993).

Once labels are attached other complications arise for labelled people. Research by Nash (1973) and Stead (cited in Leach & Raybould, 1977, p. 23) found that children were very accurate in perceiving their relative positions and abilities in class, and that their perceptions were almost identical to the perceptions of their teachers. This awareness seemed to be related to their teachers' grouping methods and the children's interpretation of their teachers' attitudes, beliefs,

expectations and behaviour towards them (Leach & Raybould, 1977). It appears, therefore, that the dangers of labelling by teachers are very real. If teachers either label or are influenced by in-place labels, a cycle of erroneous attitudes and expectations may be set in motion, which may not have positive outcomes for a child.

Gillung and Rucker (1977) found that teachers had lower expectations for negatively labelled children than for unlabelled children with identical behaviours. The negative label served as a 'self-fulfilling prophecy' (Gillung & Rucker, 1977). Even if a label is assigned incorrectly, children might behave according to that label because teachers expect them to (Blackhurst & Berdine, 1993; Good & Brophy, 1991; Pirozzo, 1983; Woolfolk, 1990).

Smith and Neisworth (1975) found that teachers may use labels as excuses for children failing. They may blame the condition on some deeper problem or home environment, which may result in teachers using their negative attitudes and expectations towards children based on labels to explain children's failure, rather than teaching children according to their individual educational needs (Smith & Neisworth, 1975; Travers et al., 1993; Woolfolk, 1990). When it is also considered that teachers are usually involved in collecting information for the diagnosis of learning and behaviour disorders, the attitudes and expectations of teachers become influential in the labelling process (Tasmanian Education Department, 1986, cited in Ashman & Elkins, 1990).

In conclusion, the educational needs of children with special needs such as learning or behaviour disorders do not usually differ fundamentally from other children (Rowe, 1990). Most children with disabilities have more in common with children without disabilities

than with children with disabilities (Casey, 1994; Westwood, 1993). Therefore, the labelling of children according to categories has no educational relevance because it tells teachers nothing about which methods or resources to use with individual children (Casey, 1994; Lilly, 1979; Woolfolk, 1990).

Some labelling will always exist due to the limitations of our language and administration purposes, but it must be remembered that labels are descriptive and not diagnostic (Casey, 1994; Lilly, 1979). Teachers should not focus on labels, but on each individual's behaviour, especially their learning strengths and weaknesses (Travers et al., 1993; Woolfolk, 1990). It is suggested that conscious effort would be required for teachers' attitudes and expectations to remain unaffected by labels they become aware of.

Teachers' Attitudes and Expectations

Researchers have attempted to determine the effects of teachers' attitudes and expectations on children and the degree of those effects for many years. It is the view of this researcher that attitudes are a significant factor in the formation of expectations. Therefore, in this section, attitudes and expectations are considered together, based on the assumption that attitudes are an integral part of expectations, even if they are not specifically identified. Research on attitudes and expectations, in particular those of teachers, will be reviewed.

Attitudes. Travers et al. (1993) describe attitudes as relatively permanent ways of feeling, thinking and behaving toward something or somebody. These feelings, thoughts and actions reflect a person's perceptions of a situation or person (Travers et al., 1993). This

description implies that the more a person knows about someone or something and the more strongly they feel, the less likely their attitude is to change (Travers et al., 1993).

In school, if other teachers, in particular those held in respect, speak negatively and with feeling about a student, the teacher's attitude toward that student will probably be negative and difficult to change. This may also occur when the teacher's experience with one member of the family influences his or her attitude towards other members of the family (Travers et al., 1993). The teacher may develop an attitude towards a child based on unproven, biased or untrue information which may have little to do with reality, and which is often not checked for authenticity. These attitudes can be included in the development of expectations for the child. The formation of these attitudes and expectations are mostly developed without the conscious knowledge of it happening.

Expectations. People enter into interactions with others with a variety of expectations as to what will happen, and these expectations make it possible to predict the behaviour of others and make appropriate adjustments to their own behaviour (Rogers, 1986). The way people behave affects the way others respond to them. Expectations about others can cause people to treat others in ways which make others respond to people in the way they expected they would (Good & Brophy, 1991). People may not be aware of their expectations for others, and hence they do not usually check the accuracy or otherwise of these expectations before using them to predict or interpret the behaviour of others (Rogers, 1986).

In school, teachers' expectations refer to what teachers expect of children by way of future academic and social behaviour, based on what

they know of them (Good & Brophy, 1991). These expectations are directly linked to and affected by, teachers' attitudes; evaluated beliefs which predispose teachers to respond in a preferential way (Burns, 1990).

Teachers will know their students, if not through their own past dealings with them, then by reputation (Rogers, 1986). The interpretation placed on the behaviour of the pupil will be influenced by the teacher's expectations based on what they know (Rogers, 1986). Teachers' attitudes and expectations have vital significance when inferences about the future academic and social behaviour of children are based on them (Good & Brophy, 1991).

Interactions between teachers and children may be influenced by the labels and subsequent attitudes and expectations teachers may have for children (Pirozzo, 1983). If the student understands the meaning of the teacher's behaviour, achievement (or behaviour) may follow the direction of the teacher's expectations (Hamacheck, 1987). Situations where the expectations of the teacher lead to the student behaving in the expected way despite the accuracy of the initial expectations, are known as 'self-fulfilling prophecies' (Dunn, 1973; Gillung & Rucker, 1977; Jones, 1972; Rist, 1970; Rosenthal & Jacobson, 1968). It is generally accepted that teachers' attitudes and expectations can affect children's academic and/or social behaviour. The following section reviews studies of those effects.

Rosenthal and Jacobson. Much research into the effects of teachers' attitudes and expectations on children has been carried out. Perhaps the most well-known study was conducted by Rosenthal and Jacobson (1968) who claimed there was a causal relationship between teachers' expectations for the success or otherwise of an individual pupil and

the actual level of achievement experienced by a pupil. This relationship is often referred to as the 'teacher-expectancy effect' (Rosenthal & Jacobson, 1968).

The study by Rosenthal and Jacobson (1968) involved all pupils at one school being tested with a standardised general ability test, which was previously unknown to the teachers involved in the study. The teachers were told the researchers would identify the top 20 per cent of the children from the test results (actually not tested but randomly selected) who would be likely to 'bloom' during the coming academic year. The teachers were led to believe that those children would improve more than the rest of the pupils. Eight months after the teachers had received the test results, the children were re-tested, and then again after another year. The teachers were also asked to rate the pupils' academic performance and details of their general behaviour.

A statistical difference was found between the IQ gains of the control group and the 'bloomers' group over the first year, but it was found only the children aged between six and eight years who demonstrated the teacher-expectancy effect. At the end of the year, teachers rated the pupils on behavioural criteria and rated bloomers significantly more curious, interesting, appealing and happy, and considered to be less in need of approval and have a greater chance of future success. Rosenthal and Jacobson (1968) claimed there was a clear implication that, based on these results from induced positive expectations, teachers' negative expectations would depress pupils' performance (Rosenthal & Jacobson, 1968). However, Rosenthal and Jacobson's study has been criticised about weaknesses in design and analysis of the data. Their results are questioned because they have not been replicated.

Other Studies of the 'Teacher-Expectancy Effect'. Claiborn (1969), Fleming and Anttonen (1971) and José and Cody (1971) all conducted studies quite similar to Rosenthal and Jacobson (1968) using induced expectations based on test scores. All of these studies failed to support Rosenthal and Jacobson's claim that teachers' expectations have the power to become self-fulfilling and alter the behaviour and performance of pupils.

Some other studies were also based on induced expectations, which involved teachers attempting to teach pupils a series of lessons and then rating the pupils according to academic and/or behavioural criteria (Beez, 1968; Rothbart et al., 1971; Rubovits & Maehr, 1971). The results of these studies all showed clear effects of induced expectancies.

Other studies involved teachers being provided with hypothetical data and then rating pupils according to academic and/or behavioural criteria. In the study by Cooper (1979), the teacher and 'pupil' never came in contact with each other; information about hypothetical children was provided to the teachers and they were asked to rate their expectations for the pupils' future performance. Cooper (1979) found that teachers formed differential expectations on the basis of data provided to them and despite the pupils' actual performance, their initial expectations continued to have an effect on their later expectations.

The study by Mason (1973) involved teachers reading a report on individual children providing either negative, neutral or positive information and subsequently viewing videotapes of the pupils taking a test. Mason (1973) found that negative reports had a greater effect than positive or neutral reports in influencing teachers' predictions for children.

The above studies were all based on induced expectations. The studies by Beez, (1968), Rothbart et al. (1971), Rubovits and Maehr (1971), Mason (1973) and Cooper (1979) all showed clear effects of induced expectancies in both positive and negative directions.

Other researchers used naturalistic classroom studies to study the 'teacher-expectancy effect'. Palardy (1969) studied teacher-expectancy effects for boys versus girls depending on whether their teachers believed young boys and girls had equal reading ability or that girls had greater reading ability than boys. The results showed that boys whose teachers believed them less capable than girls apparently became so, despite initially having the same pre-tested ability (Palardy, 1969).

In another study, Rist (1970) found that children behaved and performed generally according to their teacher's expectations based on the information given to them. The differential behaviour shown by the teacher to each group depended on the teacher's attitude to the labels assigned each group.

Dusek and his colleagues conducted a series of studies into the teacher-expectancy effect and concluded that teachers did not bias either the intellectual development or achievement of young children (Dusek & O'Connell, 1973; O'Connell, Dusek & Wheeler, 1974). They claimed teachers' naturally occurring expectations were accurate predictors of their pupils' levels of performance rather than causal determinants of them.

Murphy (1974) found that while teachers had preference for well-behaved and presentable children, these preferences did not lead to levels of higher academic attainment. Crano and Mellon (1978) found that the earlier expectations of teachers could affect the later

performance of pupils. They claim these expectations were in part affected by pupil performance, which suggests that the overall expectations tended to determine performance.

The differing results of these naturalistic classroom studies of the teacher-expectancy effect using induced expectations, do not produce an immediate and obvious picture of the effects of teachers' attitudes and expectations. It cannot be said under which conditions the teacher-expectancy effect will occur and under which they will not except to say that it appears that the effects are more likely to take place with younger children.

Despite the mixed results of the studies on the teacher-expectancy effect, popular educational psychology texts warn against the effects of teachers' negative attitudes and expectations and their possible negative repercussions for students (Alberto & Troutman, 1990; Blackhurst & Berdine, 1993; Casey, 1994; Good & Brophy, 1991; Lilly, 1979; Woolfolk, 1990). This suggests the effects of teachers' attitudes and expectations on childrens' academic and behavioural outcomes should not be underestimated and it should be assumed that negative teachers' attitudes and expectations could have negative repercussions for their students.

Other Effects of Teachers' Attitudes and Expectations. It would appear that teachers' behaviour towards children due to negative expectations may result in children falling even further behind than they might otherwise, reinforcing teachers' expectations (Good & Brophy, 1991). Teachers may not even try to teach things children are capable of learning due to the low or unreasonable expectations (Alberto & Troutman, 1990).

In addition, teachers have varied ideas of what constitutes

acceptable behaviour in their classrooms, and also vary in their willingness to work with children who lack skills or behaviours considered critical (Walker & Rankin, 1983). Examples of the differing attitudes are 'This child does not belong in my class' (unless the child's behaviour is already within their defined limits), compared with, 'This child's behaviour needs improvement, but I'll handle it' (Wong, Kauffman, & Lloyd, 1991). In addition, teachers are unlikely to accept and work successfully with children who chronically fail to meet their standards of behaviour (Kauffman, Lloyd, & McGee, 1989). These factors may all affect the way children perceive their teachers' attitudes and expectations about them, which may in turn influence their behaviour.

Conclusion. One of the most powerful influences in children's lives is the influence of teachers. They have a profound influence on children's behaviour and achievement. The attitudes and expectations of teachers are particularly important to children with learning and behaviour disorders, such as ADD.

Attention Deficit Disorder, Labelling and Teachers' Attitudes and Expectations.

Reeve (1990), describing ADD behaviours and the effects they can have in the classroom, states:

The odds are good that a typical classroom will include at least one child who experiences serious difficulty paying attention, is markedly impulsive, and/or is hyperactive. Such children are frustrating for teachers because they do not

respond in the same way as others, and are often disruptive. (p. 70)

This statement encompasses some of the issues surrounding ADD. It would seem likely that the perceived problems associated with ADD could be integral in the development of teachers' attitudes and expectations regarding children with ADD. The complex nature of ADD and associated problems means teachers and their attitudes and expectations become significant factors in successfully meeting the needs of children with ADD.

ADD has been controversial since it was first described in medical literature in the 1930's (Murphy & Hicks-Stewart, 1991). The current controversy includes questions about whether ADD should be categorised as a learning or behaviour disorder or a related disorder, and what the treatment should be (Murphy & Hicks-Stewart, 1991; Silver, 1990).

Silver (1990) claims that even though ADD is prevalent in 15-20% of children and adolescents with learning disabilities, it is not a learning disability, but a behaviour disability in which a learning disability can be a consequence. Recently, as with learning disabilities, the initial medical focus has begun to shift to an educational focus and what it means for children with ADD and their teachers at school (Reid et al., 1994b).

In order to gain some perspective on the likelihood of teachers having to teach children diagnosed with ADD, the following data should be considered. ADD is now recognised as the most common medical/psychiatric childhood disorder with between 5% to 10% of children in American schools diagnosed with the disorder (Shaywitz & Shaywitz, 1993; Reid et al., 1994a). ADD is rarely diagnosed in adolescents (Woolfolk,

1990) and more than 90% of all children diagnosed are male (Serfontein, 1990). Whether ADD is on the increase or simply being identified more due to the label is debatable (Casey, 1994). However, the fact remains that teachers are having to deal with the effects of ADD on an increasing basis, and their attitudes and expectations regarding children with ADD may be critical for these children.

The many proffered 'causes', combined with the lack of empirical evidence of causes of ADD, may cause confusion for teachers as to how they can meet the needs of children with ADD (Goodman & Poillion, 1992; Riccio et al., 1993; Serfontein, 1990). The broad diagnostic criteria, as contained in the most widely used diagnostic manual, DSM-III-R (APA, 1987) means individual children with ADD may exhibit significantly different behaviours than other children with ADD. Furthermore, most ADD behaviours occur in normal children and children with other problems (McBurnett, Lahey & Pfiffner, 1993). These aspects may lead to teachers becoming cynical about the authenticity or accuracy of the disorder or diagnosis. In addition, the perceived lack of educationally-relevant information and training (Reid et al., 1994b) may lead to the needs of children with ADD not being met or ignored.

It is commonly agreed that the identification of ADD requires a comprehensive assessment of the specific needs of individual children and that intervention is dependent on the extent of the specific difficulties of each child in a specific context (Murphy & Hicks-Stewart, 1991). Researchers currently recommend multi-modal intervention treatment for ADD involving the four areas of medical management (medication), psychological support, educational management and behaviour modification (American Academy of Pediatrics, 1987; Pfiffner & Barkley, 1990).

It is highly recommended that the school is involved in each element of the treatment in order to provide an integrated educational plan for the child (Evans & Moreton, 1994; Reid et al., 1994a; Rooney, 1993). The child's class teacher is a vital component in the treatment plan and may have a significant impact on the success of the treatment of a child with ADD. The teacher's attitudes and expectations and knowledge of ADD will play an important part in the success of a programme of treatment.

Little research has been conducted into the relationship between ADD and teachers. Madle, Neisworth and Kurtz (1980) evaluated the effect of the ADD label on college students by asking them to view two videotapes of 'normal' preschool activity. One group was told that one child was hyperkinetic (now referred to by the label 'ADD') and the other child was not, while a second group was given the opposite information to the first group. The study found that the presence of the label led to a perception of more deviant behaviour of the 'hyperkinetic' child.

A study by Cornett-Ruiz and Hendricks (1993) involved showing two groups of primary school teachers separate videos where an eight year old boy acts as though he has ADD in one video and normally in the other, and viewing a handwritten story supposedly by the child with ADD. The video was filmed in a regular classroom setting. The teachers were then asked to answer a questionnaire in which they rated their first impressions (e.g., how they viewed the day-to-day encounters with the child, how he gets along with his peers, completes tasks, his disposition), their predictions about the child's long term success, and their ratings for a handwritten story (Cornett-Ruiz & Hendricks, 1993).

The results of the study showed that the presence of the label 'ADD' had no significant effect on any of the ratings, but viewing of

the videotape of the child with ADD had a significant negative impact on the first impressions and prediction rating scales (Cornett-Ruiz & Hendricks, 1993). The authors concluded that first encounters between children with ADD and teachers are critical, and that even brief exposure to stereotypical behaviour can influence the judgements of teachers. These two studies support the notion that teachers' attitudes and expectations may be influenced by the label 'ADD' and their knowledge of the disorder.

Reid et al. (1994b) recently approached the issue of the relationship between ADD and teachers from a different perspective. Reid and his colleagues studied teachers' perceptions of instructional barriers and their self-efficacy in working effectively with students with ADD from two main perspectives: previous experience with children with ADD and previous training in ADD at inservices or during teacher training (Reid et al., 1994b). They gathered data from third grade teachers, because ADD behaviours have usually been manifested and identified by this age.

Reid and his colleagues found that although differences between barrier ratings were found between participants with and without prior experience teaching students with ADD, no difference emerged between teachers who either had or had not received prior training in ADD. More differences were found in the perceived confidence in attaining instructional goals between teachers who had and had not received prior training in ADD. Both experience and prior training significantly affected teachers' perceived confidence, with more differences evident across teachers with and without prior training. Teachers with prior experience and training reported higher perceived confidence in their ability to determine when intervention is required and behaviour has

improved (Reid et al., 1994b).

Reid and his colleagues claimed the results point to a very real need for regular education classroom teachers to be provided with both knowledge of ADD and teaching techniques to deal with the problems children with ADD may experience in the regular classroom environment (Reid et al., 1994b; Reid et al., 1994a). It could also be said that the experience or training these teachers received was instrumental in the development of their attitudes and expectations regarding their ability to meet the needs of children with ADD.

Implications of Research. The results of studies conducted by Madle, Neisworth and Kurtz (1980) and Cornett-Ruiz and Hendricks (1993) indicate that teachers' attitudes and expectations can be affected by the negative connotations associated with the label 'ADD'. The study by Reid and his colleagues found that training in ADD and experience with children with ADD led to more confidence teachers had in dealing with issues associated with ADD (Reid et al., 1994b). These results can be considered in conjunction with the results of research into school-based practices in the treatment of children with ADD which revealed that the schools doing the best work with children diagnosed with ADD recognised ADD as a discernable disorder (Burcham, Carlson & Millich, 1993).

Questions may be asked about the effects of the label 'ADD' on teachers' attitudes and expectations, along with the confidence and ability teachers have to meet the needs of children with ADD. If the school community does not have the resources required to meet the needs of children with ADD (e.g., information of the disorder, teaching strategies, support) then the teacher may develop negative attitudes and expectations regarding children with ADD without realising it.

Negative attitudes and expectations regarding children with ADD may develop through misinformation, inaccurate labels or lack of resources. These issues need to be investigated and addressed to ensure the needs of children with ADD are being met.

Summary of Research on Labelling, Teachers' Attitudes and Expectations and ADD.

Research on the effects of labelling and teachers' attitudes and expectations has been shown to be inconclusive. However, teachers are strongly advised by educational experts and researchers to be aware of the possible effects of negative labelling, attitudes and expectations on their students.

Teachers often become part of the labelling process when interactions between a student and his or her teacher are possibly strongly influenced by the labels, attitudes and expectations the teacher has for the student. Teachers may either impede or facilitate the children's behaviour and achievement according to the influence of labels and their subsequent attitudes and expectations (Pirozzo, 1983). To quote Casey (1994):

Labelling children has an effect on teachers.

Extrapolation from controversial studies on teacher expectations seem to indicate that teachers expect and receive academic performance and social behaviour from children according to the label that has been applied. Many labels carry connotations of inherent disability and irremediability so low expectations are made and low performance is achieved. (p. 30)

The implications of the negative effects the label 'ADD' may have on the attitudes and expectations of teachers for children with ADD could

be that those children are less likely to succeed or progress at an optimal rate in the classroom.

To assist in meeting the needs of children with ADD, teachers need to be knowledgeable about the impact of ADD characteristics on children's behaviour, performance and instruction, as well as have accurate knowledge of the child's individual ADD behaviours (Rooney, 1993). Only then, can teachers develop positive attitudes and expectations for children with ADD, free of the influences of negative labelling. This study was conducted in order to gain an insight into the attitudes and expectations of Western Australian metropolitan primary school teachers regarding children with ADD.

Review of Methodology of Related Studies

In order to gain a perspective on the quality and appropriateness of the methodology of the present study, it is compared to other studies of related topics. Studies by Madle et al. (1980) and Cornett-Rulz and Hendricks (1993) attempted to assess the effects of a label, either 'hyperkinesis' or 'ADHD'. Reid and his colleagues (1994) investigated teachers' perceptions of perceived instructional barriers and their self-efficacy in working effectively with students with ADHD. Each of these studies is related to this study and will be discussed. Specific emphasis will be given to the research design used.

Madle, Neisworth and Kurtz. Madle et al. (1980), in their study 'Biasing of hyperkinetic behaviour ratings by diagnostic reports,' researched the effects the label 'hyperkinesis' had on the responses of subjects. The subjects were student teachers and the study assessed the data according to the method of behaviour assessment instrument used: either the rating scale or the time-sampling method, and whether they

had been trained in using the particular method or were simply familiar with it. This study used 24 subjects, two groups of 12 (rating scale and time-sampling method) and within each group half received training while the other half were familiar with the method. The study was a 2 x 2 x 2 factorial analysis of variance (ANOVA) and utilised a published scale for assessment of hyperkinetic behaviour, while the time-sampling method was developed by Madle et al. (1980).

The subjects were divided into two groups and provided with developmental background information on two children, one of whom they were told had been diagnosed with 'hyperkinetic syndrome'. Each group was told the opposite child was hyperkinetic. The subjects then viewed a videotape of a preschool child engaged in normal activities and completed either the rating or time-sampling instrument. The results of the ANOVA revealed significance on the main effects for training and bias and the three-way interaction of method, training and bias. Where significant differences were indicated, the Scheffè post hoc comparison was performed.

The main criticism of study by Madle et al. (1980) is that the subjects were recruited with inducements (credit towards their studies) rather than randomly sampled, a threat to the internal validity of the study. In the present study, the initial intention to use videotaped scenarios was abandoned in favour of vignettes due to time and cost limitations, and the focus of the study was more firmly focussed on the effect of the label rather than the behaviour of the child as perceived by the teacher.

Cornett-Ruiz and Hendricks. The study by Cornett-Ruiz and Hendricks (1993), 'Effects of labeling and ADHD behaviours on peer and teacher judgements', was a more elaborate study with a slightly different focus

and a larger sample. Thirty nine primary school teachers and 81 primary school children were recruited from three different schools, and were divided into two groups. Videotapes with a child acting either 'normally' or with ADHD behaviours as defined in DSM-III-R (APA, 1987) were prepared, along with a handwritten story supposedly written by the child in the video. Each group was told the child they would see on video either did or did not have ADHD, and those who were told the child had ADHD were given an explanation of the disorder.

The questionnaires, filled out subsequent to viewing the video, were divided into three sections. The 'First Impressions Rating Scale' focussed on how the teachers and peers viewed the day-to-day encounters with a child, the 'Prediction Scale' explored predictions for the child's long term success, and the 'Essay Rating Scale' explored how teachers and peers rated the child's performance on the academic task (the essay). The questionnaire was reportedly pilot tested on 18 teachers; no details about testing for internal and external validity and reliability were given.

For each section of the questionnaire, an item analysis was conducted and some items with low correlations with the scale total were discarded. The composite scores for each subject were then analysed using three 2 (label or no label) x 2 (ADHD behaviour or normal behaviour) x 2 (teacher or peer) ANOVA's, to determine the interaction between the variables. Only the effects on the teachers are relevant and will be discussed here.

The main criticism of the study by Cornett-Ruiz and Hendricks (1993), is the sample size (of the teacher group) and recruitment of subjects as opposed to random sampling to control for threats to the validity of the study. Their sample was larger than the study by Madle et al. (1980),

their study more comprehensive, and their results contradict the findings by Madle et al. (1980) on the effects of the ADD label (Cornett-Ruiz & Hendricks, 1993). Details of their pilot study (designed by them) were not reported, so no assessment of reliability and validity could be made (Cornett-Ruiz & Hendricks, 1993).

In comparison to the present study, the study by Cornett-Ruiz and Hendricks' (1993) was larger in terms of resources (instrumentation, implementation, subject preparation and participation). The part of the study that assesses the effect of the label versus no label regarding the behaviour of the child and teachers' attitudes and expectations regarding the child (first impressions and prediction scales) is similar, just a different method of inducing the label and exposure to the ADD behaviours.

Reid, Vasa, Maaq and Wright. The focus of the study by Reid et al. (1994b), 'Analysis of teachers' perceptions of attention deficit-hyperactivity disorder', was to investigate the problems the classroom teacher may face educating students with ADHD. They gathered data pertaining to teachers' perceptions of instructional barriers and their self-efficacy in effectively working with students with ADHD, from two perspectives: previous experience with students with ADHD and previous training in ADHD. The study utilised a 2 (prior experience/no prior experience) x 2 (training/no training) analysis of covariance (ANCOVA), with teaching experience as a covariate.

Reid et al. (1994b) developed a questionnaire with two components: 'Barriers to effective programming' contained 13 items consisting of possible obstacles that reflected possible practical difficulties that could be encountered by classroom teachers based on previous research

which were required to be rated on a scale of 'not important' to extremely important', and 'Confidence in attaining goals' where subjects were asked to rate ten items ('no confidence' to 'strong confidence') according to their confidence in their ability to accomplish instructional tasks necessary for successful classroom integration of student with ADHD. The sample consisted of 554 randomly selected third-grade elementary school teachers, and the data was collected by mail, with a response rate of 55.4% after a second mailing.

The results of the study by Reid et al. (1994b) are related to outcomes of the final group of items in the present study which were aimed at assessing teachers' knowledge of information of and strategies for children with ADD. The instrument was designed by Reid and his colleagues but no information was provided detailing the pre-testing procedures for validity and reliability (Reid et al., 1994b). The main strength of the study was the large randomly selected sample which ensures good validity and generalisability to the larger population of teachers and the teacher training system. The method of data collection was very similar to the present study.

Review of Methodology for this Study.

This section provides a step-by-step analysis of the design and the supporting methodology for a study of this type. Most researchers place great importance on utilising an experimental design because it is the only method that can be used to establish cause-and-effect relationships between two or more variables. It can also be used to attempt to directly influence a particular variable (Borg & Gall, 1989; Fraenkel & Wallen, 1990).

Design. This study utilised a factorial design, a modification of the randomised posttest-only control group design which permits the investigation of additional independent or moderator variables and the interaction of an independent variable with one or more other variables (Borg & Gall, 1989; Burns, 1990; Fraenkel & Wallen, 1990). The moderator variables are those independent variables selected to see if they affect the relationship between the primary independent variable and the dependent variables (Burns, 1990; Fraenkel & Wallen, 1990).

Sample. Subjects were selected for the study using the cluster random sampling technique (Fraenkel & Wallen, 1990). Schools were randomly selected, and consenting teachers from those schools participated in the study. The simple random sampling technique was employed, by putting the codes of the schools from the accessible population in a container and drawing the required number of schools (Borg & Gall, 1989). This sampling method was employed due to the difficulty of selecting a random sample of individual teachers from the accessible population, and it was less time-consuming (Fraenkel & Wallen, 1990).

The disadvantage of the method is that there is a greater chance of selecting a sample not truly representative of the target population (McMillan & Schumacher, 1989; Fraenkel & Wallen, 1990). However, greater randomisation of subjects was achieved by sending the participating schools packets of questionnaires containing half Vignette A (ADD) and half Vignette B (learning and behaviour disorders) questionnaires which were then assigned randomly to participating teachers. In this way the groups were randomly selected, with the experiment group consisting of 81 teachers who responded to Vignette A, and the control group consisting

of 76 teachers who responded to Vignette B. The final sample sizes of the two groups were 81 and 76, and with the recommended minimum number of 15 subjects in each group (Borg & Gall, 1989; Fraenkel & Wallen, 1990; Gay, 1990) the sample sizes for this experiment compare well to these guidelines.

Internal Validity. Fraenkel & Wallen (1990) claim the randomised posttest-only control group design is the best of all experimental designs. The nature of the design controlled for many threats to the internal validity of the study, such as subjects characteristics, maturation and statistical regression and testing. Threats of mortality or attitudinal threats could not be controlled for (Borg & Gall, 1989; Fraenkel & Wallen, 1990). Implementer, instrumentation and history threats may exist but cannot be controlled by any design because they are independent of the design itself (Fraenkel & Wallen, 1990).

External Validity. The external validity of the study, the extent to which the findings of the study can be applied to particular settings, depends on several factors: population validity, ecological validity, representative design, experimenter bias and treatment fidelity (Borg & Gall, 1989). The population validity for this study was addressed through the random sampling procedures.

The threats of ecological validity of the study encompasses several aspects: the Hawthorne effect, novelty and disruption effects (the subjects may have experienced negative effects due to the disruption of their routines), and interaction of history and treatment effects, which may be related to disruption effects. Other threats to the ecological validity of the study were either not applicable or controlled.

The representative design threat was controlled for, but treatment

fidelity could not be controlled for. The questionnaires for collecting the data were sent through the mail with a letter to each principal reminding them that the purpose of the study was to research 'Teachers' attitudes and expectations regarding learning and behaviour disorders'. No mention of the term 'ADD' was made in an attempt to control the independent variable. It was anticipated that the subjects did not realise that they did not all have identical questionnaires. If they did, then subjects responding to Vignette B (control group) may have responded differently than they may have otherwise, thus posing a threat to the external validity of the study.

Instrument. The study utilised self-report data collected from questionnaires containing a vignette describing the typical ADD behaviours of a hypothetical child, a Likert-type rating scale and an invitation to provide additional relevant comments. The behaviours described in the vignette were constructed from the ADD diagnosis criteria contained in the DSM-III-R (APA, 1987) and modelled on case studies published in 'Intervention with Hyperactive Children' (Fine, 1980), although it was eventually decided to present the vignettes point-form rather than narrative-style.

The Likert-type scale is an attitude scale which is the most widely used instrument in survey research and is designed to obtain standardised information from all subjects (Borg & Gall, 1989) and reflect subjects' beliefs or opinions about given statements (McMillan & Schumacher, 1989). The most common format involves subjects responding to a statement by marking a number or category corresponding to their strength of opinion, usually a range of responses from 'strongly agree' to 'strongly disagree' (Anderson, 1990). The inclusion of an 'undecided', 'no opinion' or 'not

enough information to form an opinion' category is sometimes questioned by researchers, but McMillan & Schumacher (1989), Anderson (1990) and Burns (1990) recommend including the neutral category so that the respondent is not forced to make a choice, which may lead to frustration.

The main disadvantage of using an instrument of this type is that because it collects self-report data, the researcher can never be sure of the degree of truth in the subjects' responses (Borg & Gall, 1989). Advantages of the Likert method are the greater ease of preparation, the data collected is empirical rather than subjective, and the validity and reliability of the instrument is reasonably high due to the method producing a homogenous scale which increases the probability that a unitary attitude is measured (Burns, 1990).

The scale format was based on the recommended procedure that items worded in a reverse direction (and subsequently reverse scored) are placed randomly throughout the questionnaire in order to force subjects to read and judge the statements carefully and avoid 'response set' by subjects filling in the scale carelessly by going down one column (Burns, 1990).

Pilot Study. Because the instrument was developed by the researcher, a pilot study was carried out (Anderson, 1990; Burns, 1990; McMillan & Schumacher, 1989). Thirty five primary school teachers completed the draft form of the instrument, containing 35 items, and were asked for constructive feedback.

The construct validity (McMillan & Schumacher, 1989; Fraenkel & Wallen, 1990) and reliability were addressed by performing an item analysis (Burns, 1990) on the data using the EdStats statistical computer programme (Knibb, 1993). Items yielding a discrimination of less than

.3 were discarded, and those with a discrimination less than but very close to .3 were modified, resulting in the final 21 items. The content validity and face validity of the inferences made from the data gathered by the instrument was determined by several medical and educational experts in ADD (McMillan & Schumacher, 1989; Borg & Gall, 1989).

Data Collection. After receiving the consent of principals of the randomly selected schools, the appropriate number of questionnaires was mailed to each school, along with an introductory letter, instructions for the presentation of the questionnaires, and a stamped, self-addressed envelope (Fraenkel & Wallen, 1990; McMillan & Schumacher, 1989). The participating teachers completed the questionnaires in their own time, and only those that were returned to the researcher within three weeks of send-out were included in the analysis (McMillan & Schumacher, 1989).

The advantages of mailing questionnaires are that it is a relatively inexpensive procedure (mailing, telephone and manpower costs), it allows the researcher access to data from subjects who may otherwise be difficult to include in the study, and it allows subjects to take sufficient time to respond to the questionnaire thoughtfully (Fraenkel & Wallen, 1990). The disadvantages of mailing the questionnaires are the lack of opportunity for the researcher to answer questions or encourage responses and the tendency to produce low response rates (Fraenkel & Wallen, 1990).

Response rates in mail surveys have been reported from as low as 10% to as high as 90% (Fraenkel & Wallen, 1990). McMillan and Schumacher (1989) claim that initial mailings will usually result in a response rate of between 40% and 60%, and that follow-up mailings or telephone calls increase the response rate to 50% or 60% in most studies. No follow-up mailings or telephone calls were made in this study due to

time and cost restrictions.

Data Analysis. The data was analysed using a multivariate analysis of variance (MANOVA) to investigate and determine the relationships between variables (Borg & Gall, 1989; McMillan and Schumacher, 1989). The MANOVA determines whether several groups differ on more than one dependent variable (including several moderator variables) by comparing their means. It is similar to the t-test and analysis of variance except that those tests can only determine whether several groups differ on one dependent variable (Borg & Gall, 1989). The test of statistical difference most commonly used for MANOVA is the Wilks lambda test, which yields a F value or ratio which can be looked up in an F ratio table to determine its level of statistical significance (Borg & Gall, 1989). For this study, results had a significance level of less than .05. Related variables are grouped into clusters (known as vectors or constructs) and analysed by a separate MANOVA (Borg & Gall, 1989).

If a significant F ratio is obtained then an analysis of variance (ANOVA) using a post-hoc multiple comparison is performed to determine which of the variables is statistically significant (Borg & Gall, 1989; Fraenkel & Wallen, 1990). The Tukey multiple comparison test of significance was used in this study where the Wilks lambda test yielded a significant F ratio of less than .05 (McMillan & Schumacher, 1989; Borg & Gall, 1989). The Scheffe test is often used with ANOVA, but the Tukey test is less conservative (Borg & Gall, 1989; McMillan & Schumacher, 1989) and was considered the most appropriate for this study. These tests take into account the probability that a significant difference will be found between mean scores simply because many comparisons are made on the same data (Type I error) (Borg & Gall, 1989).

Current computer software enables complex and sophisticated statistical procedures such as MANOVA to be performed with ease (McMillan & Schumacher, 1989; Burns, 1990). The SPSS statistical computer programme (1990) was used to perform the MANOVA on the data for this study. Responses to the questionnaires were summarised in order to draw some conclusions from the results, with the percentages of returns, characteristics of responses and sample responses for each item reported (Fraenkel & Wallen, 1990).

The three most common methods of presenting qualitative analysis are descriptive narration, descriptive-analytical interpretation and theoretical explanation (McMillan & Schumacher, 1989). The descriptive-analytical interpretation using inductive analysis of the additional comments was deemed the most appropriate for this study. Presentation of the qualitative data in this way involved describing, analysing and interpreting the data (McMillan & Schumacher, 1989). The recommended steps followed in this process were organising the data, scanning the data for all possible categories and topics, looking for themes, patterns and ideas, and categorising and organising the data by use of codes for categories or topics (McMillan & Schumacher, 1989).

Limitations. The main consideration influencing the design and implementation of this study, was that of resources. Being an Honours study, constraints such as time and money had a significant impact on the design of the study in terms of sample size, design and testing of the instrument and subsequent data collection techniques. In addition, the findings of this study are generalisable to Perth metropolitan primary school teachers.

Summary of Methodology Literature. The methodology of this study reflects the methodological procedures recommended in popular educational

research texts for this type of study (Anderson, 1990; Borg & Gall, 1990; Burns, 1990; Fraenkel & Wallen, 1990; Gay, 1990; McMillan & Schumacher, 1989). It also reflects attempts to improve on the methodology of related studies (Cornett-Ruiz & Hendricks, 1993; Madle et al., 1980; Reid et al., 1994a), given the constraints.

CHAPTER THREE

Method of Investigation

Design

This study was based on an experimental post-test only group design (Gay, 1992) utilising self-report data collected from a questionnaire (Borg & Gall, 1989). The independent variable was the effects of the label 'ADD', with the dependent variables being teachers' attitudes and expectations, and the moderator variables being teachers' school type, age, sex, qualifications, experience and year level. The randomly assigned control group was the group not exposed to the label 'ADD', while the randomly assigned experiment group was exposed to the label 'ADD'.

Sample

The sample of primary school teachers was selected from the accessible population of Perth metropolitan government and independent primary schools. The sample was selected using the random cluster sampling technique (Borg & Gall, 1989; Fraenkel & Wallen, 1990), where schools were randomly selected until the proposed number for the initial sample of teachers (450) was reached. Because one of the moderator variables investigated was the difference in responses of government versus independent school teachers, half of the initial sample was drawn from government schools with the other half being drawn from independent schools. The principals of the selected schools were approached for consent on behalf of their teachers for voluntary participation in the study.

The initial sample (questionnaires sent) was 453. This number was selected because it was anticipated that due to mailing a questionnaire of this type at a busy time of year, the response rate could be reasonably low and a sample of between 100 and 200 was deemed a desirable size for this study.

Instrument

Teachers' attitudes and expectations regarding learning and behaviour disorders were investigated by collecting self-report data using a Likert scale (Burns, 1990; Gay, 1992). Teachers' knowledge of learning and behaviour disorders was also investigated using this data. The instrument, 'Learning and Behaviour Disorders: Attitudes and Expectations', used in this study was designed by the researcher (Appendix A). In an attempt to control the possible negative labelling effects of the term 'disorder', in the questionnaire, the term was replaced with the word 'difficulty'.

The instrument was presented to the subjects in one of two versions. Each version consisted of a point-form vignette describing the typical behaviours of a hypothetical child, followed by a Likert scale consisting of 21 statements relating to either the vignette or other issues pertaining to learning and behaviour disorders, and a rating scale.

In Vignette A (experiment group), the teacher recently attended an in-service about ADD and refers the child for assessment for ADD, while Vignette B (control group) did not include the term 'ADD', rather, the teacher refers the child for assessment for learning and behaviour disorders. The vignettes were identical in all other aspects. The behaviours described in the vignettes were mild to moderate behaviours

as described in the diagnosis criteria for ADD in the American Psychiatric Association's DSM-III-R (1987) (See Appendix A). No additional information was provided about ADD.

The vignettes were followed by a Likert scale, comprised of a series of 21 statements and rating scales (McMillan & Schumacher, 1989). For each statement, subjects rated the strength of their opinions by marking a number (e.g., 1 indicated a 'strongly disagree' response, 3 indicated an 'undecided' response, while 5 indicated a 'strongly agree' response) (McMillan & Schumacher, 1989). The statements consisted of nine statements measuring attitudes and five statements measuring expectations. Six statements assessing knowledge about issues relating learning and behaviour disorders, such as appropriate teaching strategies, children's learning needs and regular teachers' needs, were included in order to assess the level of awareness and accurate knowledge teachers have of issues relating to learning and behaviour disorders (See Appendix A). Six statements assessing attitudes and two statements assessing expectations were reverse worded and randomly placed to avoid response set (Burns, 1990).

Pilot Study. The instrument was pre-tested by conducting a pilot study using a sample of 35 primary teachers. The instrument was presented in draft form with 32 statements (items) and the subjects were asked to provide feedback concerning length, clarity of instructions and statements, and any other concerns.

The face validity and construct validity of the instrument was determined by several experts in the field of ADD; a paediatrician and a child psychologist who work privately and within the government health system of W.A. specialising in ADD, and two leading educators in the area of learning environments and teaching strategies for children with

ADD. They represented both the medical and educational fields, and provided valuable feedback in terms of the accuracy of the measurement of the variables via the statements, as well as instructions, bias, length and clarity of the instrument.

The reliability of the instrument was determined by conducting an item analysis on the scores of each item of the instrument data collected from the pilot study (Burns, 1990) using the Ed-Stats computer programme on Macintosh (Knibb, 1993). Items relating each dependent variable were analysed as a group and those items that yielded a discrimination of less than .3 were discarded. The inclusion of reverse scored items increases the validity and reliability of the instrument by avoiding possible 'response set' (Burns, 1990). Subsequent to this process, the Likert-type scale comprised of 21 statements.

Data Collection Procedures

Subsequent to the random selection of the schools, each principal was approached for consent for the teachers of the school to participate in the study. The principals were told the purpose of the study was the research 'teachers' attitudes and expectations regarding learning and behaviour disorders'. The term 'ADD' was not mentioned so as not to bias responses. It was stressed that participation was to be voluntary, that confidentiality could be assured and that the data collection procedure was expected to take approximately 10 minutes of each teacher's time persuaded, which persuaded many to accept.

The appropriate number of questionnaires were sent to selected schools, 50% of these questionnaires being Vignette A with the remaining 50% being Vignette B. The vignettes were randomly distributed to teachers

by principals or nominees. Letters of introduction and instructions from the researcher and endorsement from the researcher's supervisor along with a stamped, return-addressed envelope were included with the questionnaires. Principals were asked to return all questionnaires completed within a week of receipt, and discard late returns. No follow-up telephone calls or letters were given. Only those questionnaires received by the researcher within 3 weeks of sending them out, were included in the study. The data from the questionnaires was then recorded, along with the coded personal data such as the type of school, sex, age, qualifications, teaching experience and year level.

CHAPTER FOUR

Results of Investigation

This chapter contains the demographics of the sample and the statistical, descriptive and qualitative analyses of results.

Demographics of Sample

A total of 453 questionnaires were sent to teachers in 27 schools. A final sample of 157 (34.65%) responded. This response rate meets accepted standards (Fraenkel & Wallen, 1990) and resulted in a good sample size for analysis and generalisation (Borg & Gall, 1989; Fraenkel & Wallen, 1990; Gay, 1990). Forty two percent of the sample provided additional comments on the questionnaire. This group was comprised of 41.97% of the experiment group and 38.15% of the control group. A summary of the demographics of the sample can be seen in Table 1.

Table 1: Table of demographics of sample (n=157).

DESCRIPTION OF SUBJECTS	VIGNETTE A (experiment)	VIGNETTE B (control)
School Type - Government	55.6%	44.4%
- Independent	52.6%	47.4%
Sex - Male	17.3%	18.4%
- Female	75.3%	76.3%
- Unknown	7.4%	5.3%
Age (Years)- 21-25	2.3%	15.8%
- 26-30	7.4%	11.8%
- 31-40	30.9%	31.6%
- 41-50	27.2%	30.3%
- 51 and over	14.8%	5.3%
- Unknown	7.4%	5.3%

Table 1 (Cont.)

DESCRIPTION OF SUBJECTS	VIGNETTE A (experiment) n = 81	VIGNETTE B (control) n = 76
Highest qualifications		
- B.A.	22.2%	17.1%
- B.Ed.	21.0%	28.9%
- Other (lower)	39.5%	36.8%
- Other (higher)	1.2%	6.6%
- Special Needs	6.2%	1.3%
- Unknown	9.9%	9.2%
Teaching experience (years)		
- less than 5	22.2%	22.4%
- 6-10	22.2%	18.4%
- 11-20	22.2%	36.8%
- more than 21	24.7%	17.1%
- Unknown	8.6%	5.3%
Year level		
- Pre-primary	11.1%	13.2%
- Junior primary	23.5%	27.6%
- Middle/upper primary	49.4%	52.6%
- Ed. Support	6.2%	1.3%
- Administration	2.5%	1.3%
- Unknown	7.4%	3.9%

Statistical Analysis

The SPSS statistical computer programme (1990) was used to conduct a multivariate analysis of variance (MANOVA) of the data. The Wilks lambda multivariate test of significance was conducted to test for differences in responses to the dependent variables by selected groups of subjects (the moderator variables). A significance level of .05 was used. Where a significant difference occurred, the one-way analysis of variance (ANOVA) using the Tukey t-test was conducted to identify which groups responded differently. A p level of .05 was used. A summary of the results can be seen in Table 2.

The statistical analysis could identify no effect of the label 'ADD' on the subjects' attitudes and expectations (effect of group on attitudes variable, $F = .716$, $df = 72$, $p > .05$; effect of group on expectations variable, $F = .411$, $df = 75$, $p > .05$; see Table 1). The experiment group subjects who responded to the vignette mentioning ADD (Vignette A) responded no differently than the control group. Thus the main null hypothesis 'The label 'ADD' will not influence the attitudes and expectations of teachers' regarding children with learning and behaviour disorders', was accepted.

To the subsidiary null hypothesis: 'No personal characteristics will influence teachers' attitudes and expectations regarding children with learning and behaviour disorders', was rejected. No significant difference was shown to occur according to the subjects' type of school (attitudes, $F = .075$, $df = 71$, $p > .05$; expectations, $F = .709$, $df = 74$, $p > .05$), sex (attitudes, $F = .746$, $df = 67$, $p > .05$; expectations, $F = .746$, $df = 70$, $p > .05$), qualifications (attitudes, $F = .854$, $df = 63$, $p > .05$; expectations, $F = .235$, $df = 66$, $p > .05$), or experience (attitudes, $F = .158$, $df = 65$, $p > .05$; expectations, $F = .139$, $df = 68$, $p > .05$). However, the MANOVA on the type of school revealed a F ratio of $.075$ ($df = 71$, $p > .05$) very close to a significant difference (See Table 2).

There was a significant difference in the way certain groups of subjects responded to two of the statements. There was a significant difference ($F = .019$, $df = 68$, $p > .05$) for the effect of the subjects' age group on their expectations regarding children with learning and behaviour disorders. The secondary ANOVA using the Tukey t -test revealed that subjects under 25 years of age responded significantly differently than subjects in the 31 to 40 age group ($F = .0291$, $df = 4$, $p > .05$)

for statement 11: There is nothing anyone could do with this child.

The other significant difference occurred in the effect of the subjects' year level on their expectations for children with learning and behaviour disorders ($F = .040$, $df = 65$, $p > .05$). The ANOVA using the Tukey t-test revealed that pre-primary teachers responded significantly differently ($F = .0019$, $df = 2$, $p > .05$) than teachers of other year levels for statement 12: I would not expect this child to do well under the circumstances described.

Table 2: MANOVA, Wilks lambda and significant Tukey test results of the the attitudes, expectations and knowledge of the sample regarding learning and behaviour disorders. (Experiment $n = 81$, control $n = 76$)

GROUP DESCRIPTION	ATTITUDES		EXPECTATIONS		KNOWLEDGE
	MANOVA	MANOVA	STATE- MENT No.	ANOVA	MANOVA
	F	F		F	F
Vignette (control/ experiment)	0.716	0.411			0.406
School Type	0.075	0.709			0.709
Sex	0.746	0.707			0.133
Age	0.758	0.019	11	0.0291	0.769
Qualifications	0.854	0.235			0.231
Teaching Experience	0.158	0.139			0.384
Year Level	0.544	0.040	12	0.0019	0.081

Descriptive Analysis

For each statement on the questionnaire, the percentage of subjects who responded in a particular way was calculated. 'Agree' and 'strongly agree' responses were added together, as were 'disagree' and 'strongly disagree' responses for ease of calculation. 'Undecided' responses were also calculated. Percentages were calculated for each group and the total

percentage of responses for each statement was also calculated (See Appendix B). Table 3 is a summary of the total response percentages.

More than 80% of the sample responded the same way to 10 of the statements, between 60% and 80% of the sample responded the same way to eight of the statements, and the remaining 3 statements drew mixed responses (See Appendix B). Based on the percentages of subjects' responses, the subjects agreed that the hypothetical child described in the vignettes exhibited unacceptable behaviour which required additional professional treatment in the form of teaching resources such as information, strategies, support and/or extra specific treatment for the child.

The answers to the research question: 'How do teachers perceive classroom issues associated with ADD?' are found in the descriptive and qualitative results. Most subjects believe children with learning and behaviour disorders do belong in regular classrooms, but that extra information and help is needed to best meet the needs of these children and all other children affected by the behaviour of the children. Subjects believe much could be done about the behaviours described in the vignettes, but have mixed feelings about how this could be achieved and are divided about their expectations for children exhibiting these behaviours being involved in most classroom disruptions.

Statements including the term 'behaviour management' drew mixed responses, along with statements containing recommended teaching strategies for children with ADD. Subjects responded differently to statements referring to the benefits of educational assessment of children exhibiting ADD behaviours in helping the teacher deal with the child appropriately (mixed responses with 68.3% agreement) versus the knowledge

of a diagnosis (of ADD) making a difference to the teaching strategies used (89.7% agreement). Subjects were in agreement about the need for and willingness to learn information about learning and behaviour disorders, and the need for regular teachers to receive extra support to provide appropriate programmes for children with learning disorders.

Qualitative Analysis of Additional Comments

Inductive analysis (McMillan & Schumacher, 1989) was performed on the additional comments provided by the subjects. Each comment was recorded and the total comments then re-read. Several issues were repeatedly addressed, so these issues were used as the classifying categories and assigned codes. Each comment was then coded according to the issue concerned. The number of comments for each issue was then determined, followed by the calculation of the percentage of comments each issue represented.

The issue receiving most attention (12.72% of comments) was the perceived need for much additional resources and support in the forms of teacher aides and teaching programmes and strategies, and information on learning and behaviour disorders common to mainstream classes. Ten percent of the comments cited the need for consideration of home circumstances in any diagnosis or treatment, while 7.64% of the comments cited the need for home involvement in any action taken for the child. Another common comment centred around the perceived need for other medical or educational assessment (mainly medical) before any decisions are made about treatment for the child. Eight percent of the comments addressed this issue with twice as many of these comments made by experiment group subjects than control group subjects.

Summary.

The results section contained the statistical and qualitative results of the study. The ADD label was found to have no effect on teachers' attitudes and expectations regarding children with learning and behaviour disorders, while age and year level had minor effects. Teachers' main concerns about ADD is the issue of perceived lack of resources such as information, teaching strategies and support.

CHAPTER FIVE

Discussion of Results

In this section, the statistical results of the study are related to the hypotheses and research question and the results of other studies and examined for plausible explanations. The descriptive and qualitative results are also examined in order to form conclusions about the responses of the subjects.

Statistical Analysis of Data

Main Hypothesis. The main hypothesis focussed on the effects of the ADD label on teachers' attitudes and expectations. The results of the MANOVA showed that the label 'ADD' had no significant effect on the attitudes and expectations of teachers regarding learning and behaviour disorders. The results dispute literature that claims the negative effects of labelling can cause differential effects on the attitudes and expectations of teachers (Gillung & Rucker, 1977; Leach & Raybould, 1977; Lilly, 1979; Pirozzo, 1983). The results also dispute the results of teacher-expectancy effect research that claims induced expectations can influence teachers' attitudes and expectations (Cooper, 1979; Dunn, 1973; Gillung & Rucker, 1977; Mason, 1973; Palardy, 1969; Rist, 1970; Rosenthal & Jacobson, 1968).

When compared to studies more closely related to the present study, a number of observations can be made. The results of this study fail to support the results of the study by Madle et al. (1980) which found the 'hyperkinetic' label affected teachers' expectations. However, the

results do support the results of the study by Cornett-Ruiz and Hendricks (1993) which found the label 'ADD' had no effect on teacher expectations.

It is encouraging that the results of this study show the 'ADD' label had no effect on teachers' attitudes and expectations, considering the current controversy surrounding the issue of ADD and the perceived lack of available information, resources and support for learning and behaviour disorders including ADD. However, the control group subjects could possibly have failed to identify the hypothetical child's problems as being ADD-related, which could have affected the results. If more control group subjects had identified the ADD behaviours, they may have responded in either a more positive or negative way, affecting the results. This indicates a lack of knowledge of ADD which may be seen as cause for concern considering it is a current and controversial issue and the possible negative repercussions for ADD children considerable.

Minor Hypothesis. The minor hypothesis investigated the issue of whether the personal characteristics of teachers can influence their attitudes and expectations regarding learning and behaviour disorders. The results show that the type of school in which teachers teach, their sex, teaching qualifications and experience had no significant effect on their attitudes and expectations regarding learning and behaviour disorders. These results fail to support the study by Reid et al. (1994b) which found that teachers' training and experience influenced their perceptions of issues surrounding ADD. However, the questionnaire used in this study was very brief in comparison to that developed and used by Reid et al. (1994b). The questionnaire used by Reid and his colleagues (1994b) may have provided further opportunities for subjects to more specifically elucidate their opinions.

The results of this study revealed there were some significant differences in the way certain groups of teachers responded to two of the statements. The statement 'there is nothing anyone could do with this child' drew significantly different expectations from teachers under 25 when compared to teachers in the 31 to 40 age group. The MANOVA is limited to determining that there is a difference, not how they responded differently. No conclusions should be drawn from this result, as it could mean that younger, less experienced teachers are more idealistic or less tolerant than more experienced teachers, or any number of other interpretations.

The statement 'I would not expect this child to do well under the circumstances described' drew significantly different responses from pre-primary teachers when compared to primary teachers. Again, little significance should be attached to this result, as it is difficult to know which way they responded. It could possibly be surmised that pre-primary is a much less structured environment than primary school, where the programme is largely child-centred with generally a greater degree of latitude allowed in child behaviour. It is possible that pre-primary teachers responded in a more tolerant way than primary teachers due to those factors. The influence of the year level taught was not explored in the other related studies, so comparisons can not be made with them.

Descriptive Analysis of Responses

Descriptive analysis gives greater insight into teachers' responses. Statements referring to the needs of regular classroom teachers with children with learning or behaviour disorders in their classes drew very strong responses, indicating the need for the issues of the

perceived lack of information and resources for and about children with learning and behaviour disorders to be addressed. These results give support by Perth metropolitan primary teachers to the recommendations made by Reid et al. (1994b, p. 200) "The results (of the study) ... point to a need for training to directly address the needs of students with ADHD in the mainstream classroom."

Qualitative Analysis of Statements and Additional Comments

The qualitative analysis of the descriptive data gives further insight into teachers' opinions regarding learning and behaviour disorders. One interesting issue to the researcher was that a number of the additional comments made the claim that assessment for ADD should be considered only after all other possible medical assessments have been exhausted. This indicates a reluctance by teachers to perceive ADD as a legitimate disorder. In addition, only 3 teachers who responded to Vignette B which did mention ADD suggested that the hypothetical child could possibly have ADD. This suggests a lack of knowledge, in this instance of the behaviour criteria of the disorder. As previously mentioned, this aspect may be seen as cause for concern considering that ADD is a current issue and the possible social and academic repercussions of that lack of knowledge for ADD children.

Another interesting issue from the special education point of view, was that statements suggesting the use of behaviour management techniques which are known to be an integral to the successful management of ADD and other learning and behaviour disorders, received poor responses by teachers. This suggests a lack of knowledge by teachers of both behaviour management techniques and learning and behaviour disorders

such as ADD.

Qualitative analysis of the additional comments provides most insight into the opinions of teachers regarding learning and behaviour disorders. The fact that in this study 40% of teachers provided additional comments shows that a significant number of teachers felt strongly enough to take extra time additional to responding to the statements, to express their feelings about the issues surrounding learning and behaviour disorders. These results support statements made by Reid and his colleagues (1994b):

Despite the fact that most students with ADHD will be served in the mainstreamed setting, little information is available detailing how prepared general education teachers are to work effectively with these students. This information is important since the classroom teacher is viewed as the major factor in the success or failure of any student and particularly those with ADHD. (p. 195)

These statements, considered in conjunction with the results of the qualitative analysis of the present study, indicate the issue of information and other resources need to be addressed on a local level in order to ensure teachers can confidently meet the needs of children with ADD to the fullest extent possible.

Limitations

Several limitations apply to studies of this nature. Most limitations are addressed in the methodology literature review chapter. This section provides a brief summary of the limitations of the study. Likert-type scales collect self-report data and rely on the truthfulness of the

subjects. They can only access certain aspects of subjects' views on an issue, which may influence the validity of the results.

The qualitative answers were more revealing than responses to the Likert scale and presented a more accurate picture of teachers' attitudes and expectations regarding learning and behaviour disorders, such as the additional comments provided. However, the logistics of gathering such data from an open-ended questionnaire were outside the bounds of this Honours study, in terms of time and costs for the researcher, but mostly because the reluctance of teachers to participate in such a study due to the time and effort involved for them. Therefore, the final form of the questionnaire was designed for ease of use, containing point-form vignettes and the Likert scale of 21 statements, in order to encourage teachers' participation in the study. Despite these modifications in design, the response rate was relatively low (36%), but the high initial number of questionnaires was sent out in anticipation of a response rate of between 30% and 40%. The resultant sample size enabled generalisability of the results to the accessible population.

Certain internal and external threats to the validity of the results of the study existed. Mortality and attitudinal threats to the internal validity could not be controlled for. Implementer, instrumentation and history threats may have existed, but could not be controlled for by any design (Fraenkel & Wallen, 1990). Ecological threats to the external validity of the study such as the Hawthorne effect, novelty and disruption effects, and the interaction of history and treatment fidelity effects may have existed but could not be controlled for. All efforts were made to control for these threats, but their effect on the results is unknown.

The resource constraints associated with an Honours study impose most limitations. Time and money constraints were most significant. They limited the data collection methods to mailing, the sample size by no follow-up telephone calls or late returns and restricted the sample to metropolitan primary school teachers selected with the cluster random sampling technique. The results of the study are therefore generalisable only to Western Australian metropolitan primary school teachers.

Conclusion

Perth primary school teachers did not appear to be influenced by the label 'ADD' in this study, and their personal characteristics were shown to have little effect on their responses. However, qualitative analysis of the responses to the statements and additional comments reveals certain concerns of teachers not evident from the statistical analysis of the data. From the responses to the statements and the comments provided, it is evident that Perth primary teachers are vitally interested in meeting the needs of all children in their classes, but they generally feel that they do not have the appropriate resources to always achieve that.

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Appendix A

LEARNING AND BEHAVIOUR DISORDERS:
TEACHERS' ATTITUDES AND EXPECTATIONS

This questionnaire will provide data for research on learning and behaviour disorders.

Please provide the following information -

Male or female:

Age:

Qualifications:

Years of teaching experience:

Year level:

INSTRUCTIONS

Please read the description of the child's typical behaviour and then indicate the strength of your opinions about each statement by marking the appropriate response (e.g., 5 for strongly agree, 1 for strongly disagree).

Extra comments are welcome, and should be written in the section at the end of the questionnaire.

The questionnaire should take approximately 15 minutes to complete.

KEY

- 1 - if you STRONGLY DISAGREE with the statement
- 2 - if you DISAGREE with the statement
- 3 - if you are UNDECIDED about the statement
- 4 - if you AGREE with the statement
- 5 - if you STRONGLY AGREE with the statement

Questions may be directed to Cathrine Moreton on 444 7801 or Dr David Evans on 370 6479.

THANKYOU for participating in this research project.

VIGNETTE A

Kim is 7 years old. Kim's teacher has made an appointment for Kim's social and academic behaviour to be professionally assessed. The teacher has mentioned the possibility of Kim having Attention Deficit Disorder (ADD). The following is a description of Kim's typical behaviour.

- Kim: - is usually untidily dressed/groomed and does not take care of possessions
- has few organisational skills and does not remember to complete routine chores (e.g., change home reader, prepare pencils, etc.)
 - cannot follow more than one instruction at a time
 - constantly disrupts the class (e.g., gets up from the desk, calls out answers to questions, calls out at inappropriate times or bothers other children)
 - completes little work due to looking for pencils, sharpening pencils, etc.
 - has extremely untidy work habits; writing is often illegible; work is mostly unfinished
 - seems to deliberately annoy other children
 - seems to have poor short-term memory (e.g., cannot remember if home reading was done or not)
 - is constantly being ejected from playground games due to wanting to control the games and make the rules, which culminates in verbal and often physical confrontations, and drifts from one game to another throughout recess and lunch breaks
 - consistently acts without considering the consequences (e.g., throws scissors, climbs onto roofs to retrieve balls)
 - started school with average to good academic performance but academic achievement has been steadily declining.

Kim's teacher recently attended an in-service on ADD and feels that Kim's typical behaviour meets with the ADD behaviour criteria.

Please respond to EACH statement.

	Strongly Agree	Undecided	Disagree	Strongly Disagree	
1. This child's behaviour is contributing to the academic decline.	5	4	3	2	1
2. This child requires more discipline.	5	4	3	2	1
3. This child's behaviour meets commonly accepted classroom standards.	5	4	3	2	1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
4. This child would be welcome in my class.	5	4	3	2	1
5. The behaviour of this child is typical for the age group.	5	4	3	2	1
6. Recommending this child for assessment was a sign of the teacher not wanting to deal with the issue.	5	4	3	2	1
7. Children with behaviour difficulties do not belong in regular classrooms.	5	4	3	2	1
8. Appropriate intervention would result in improved behaviour by this child.	5	4	3	2	1
9. Children with learning difficulties do not belong in regular classrooms.	5	4	3	2	1
10. I would attend a seminar on learning difficulties if given the opportunity (within school hours).	5	4	3	2	1
11. There is nothing anyone could do with this child.	5	4	3	2	1
12. I would not expect this child to do well under the circumstances described.	5	4	3	2	1
13. If there is a disruption in the classroom I expect this child to be involved.	5	4	3	2	1
14. A behaviour management programme would result in improvement in this child's behaviour.	5	4	3	2	1
15. Children with behaviour difficulties could learn to play cooperatively in the playground.	5	4	3	2	1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
16. Educational assessment would help the teacher deal with this child appropriately.	5	4	3	2	1
17. Knowledge of a child's diagnosis would make a difference to the teaching strategies I would use.	5	4	3	2	1
18. This child requires a behaviour management programme aimed at completing more work.	5	4	3	2	1
19. The teacher could help this child by teaching organisational skills.	5	4	3	2	1
20. Children with learning difficulties require very structured lessons.	5	4	3	2	1
21. Regular teachers need extra support to provide appropriate programmes for children with learning difficulties.	5	4	3	2	1

Please comment on any other relevant issues.

VIGNETTE B

Kim is 7 years old. Kim's teacher has made an appointment for Kim's social and academic behaviour to be professionally assessed. The following is a description Kim's typical behaviour.

- Kim: - is usually untidily dressed/groomed and does not take care of possessions
- has few organisational skills and does not remember to complete routine chores (e.g., change home reader, prepare pencils, etc.)
 - cannot follow more than one instruction at a time
 - constantly disrupts the class (e.g., gets up from the desk, calls out answers to questions, calls out at inappropriate times or bothers other children)
 - completes little work due to looking for pencils, sharpening pencils, etc.
 - has extremely untidy work habits; writing is often illegible and work is mostly unfinished
 - seems to deliberately annoy other children
 - seems to have poor short-term memory (e.g., cannot remember if home reading was done or not)
 - is constantly being ejected from playground games due to wanting to control the games and make the rules, which culminates in verbal and often physical confrontations, and drifts from one game to another throughout recess and lunch breaks
 - consistently acts without considering the consequences (e.g., throws scissors, climbs onto roofs to retrieve balls)
 - started school with average to good academic performance but academic achievement has been steadily declining.

Please respond to EACH statement.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. This child's behaviour is contributing to the academic decline.	5	4	3	2	1
2. This child requires more discipline.	5	4	3	2	1
3. This child's behaviour meets commonly accepted classroom standards.	5	4	3	2	1
4. This child would be welcome in my class.	5	4	3	2	1

	Strongly Agree	Undecided	Disagree	Strongly Disagree	
5. The behaviour of this child is typical for the age group.	5	4	3	2	1
6. Recommending this child for assessment was a sign of the teacher not wanting to deal with the issue.	5	4	3	2	1
7. Children with behaviour difficulties do not belong in regular classrooms.	5	4	3	2	1
8. Appropriate intervention would result in improved behaviour by this child.	5	4	3	2	1
9. Children with learning difficulties do not belong in regular classrooms.	5	4	3	2	1
10. I would attend a seminar on learning difficulties if given the opportunity (within school hours).	5	4	3	2	1
11. There is nothing anyone could do with this child.	5	4	3	2	1
12. I would not expect this child to do well under the circumstances described.	5	4	3	2	1
13. If there is a disruption in the classroom I expect this child to be involved.	5	4	3	2	1
14. A behaviour management programme would result in improvement in this child's behaviour.	5	4	3	2	1
15. Children with behaviour difficulties could learn to play cooperatively in the playground.	5	4	3	2	1

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
16. Educational assessment would help the teacher deal with this child appropriately.	5	4	3	2	1
17. Knowledge of a child's diagnosis would make a difference to the teaching strategies I would use.	5	4	3	2	1
18. This child requires a behaviour management programme aimed at completing more work.	5	4	3	2	1
19. The teacher could help this child by teaching organisational skills.	5	4	3	2	1
20. Children with learning difficulties require very structured lessons.	5	4	3	2	1
21. Regular teachers need extra support to provide appropriate programmes for children with learning difficulties.	5	4	3	2	1

Please comment on any other relevant issues.

Appendix B: Total percentages of responses to each statements.

	VIGNETTE	AGREE	DISAGREE	UNDECIDED
1. This child's behaviour is contributing to the academic decline.	A	97.14%		2.85%
	B	90%	1.42%	8.57%
2. This child requires more discipline.	A	21.42%	38.57%	40%
	B	18.57%	35.71%	45.71%
3. This child's behaviour meets commonly accepted classroom standards.	A	4.28%	95.71%	
	B	1.42%	95.71%	2.85%
4. This child would be welcome in my class.	A	7.15%	62.85%	30%
	B	15.72%	64.28	20%
5. The behaviour of this child is typical for the age group.	A	7.15%	87.14%	5.71%
	B	7.15%	95.73%	1.42%
6. Recommending this child for assessment was a sign of the teacher not wanting to deal with the issue.	A	2.85%	92.85%	4.3%
	B	1.42%	95.71%	2.87%
7. Children with behaviour difficulties do not belong in regular classrooms.	A	7.15%	80%	12.85%
	B	8.57%	77.14%	14.29%
8. Appropriate intervention would result in improved behaviour by this child.	A	1.42%	80%	18.58%
	B		85.72%	14.28%
9. Children with learning difficulties do not belong in regular classrooms.	A	10%	78.58%	11.42%
	B	7.14%	85.71%	7.15%
10. I would attend a seminar on learning difficulties if given the opportunity (within school hours).	A	98.57%		1.43%
	B	98.57%	1.43%	
11. There is nothing anyone could do with this child.	A	5.71%	91.42%	2.87%
	B		98.57%	1.43%
12. I would not expect this child to do well under the circumstances described.	A	74.28%	12.86%	12.86%
	B	71.42%	12.67%	15.91%

	VIGNETTE	AGREE	DISAGREE	UNDECIDED
13.If there is a disruption in the classroom I expect this child to be involved.	A	20%	52.85%	27.15%
	B	17.14%	51.42%	31.44%
14.A behaviour management programme would result in improvement in this child's behaviour.	A	70%		30%
	B	65.71%	8.58%	25.71%
15.Children with behaviour difficulties could learn to play cooperatively in the playground.	A	88.57%		11.43%
	B	90%	1.43%	8.57%
16.Educational assessment would help the teacher deal with this child appropriately.	A	68.58%	12.85%	18.57%
	B	65.71%	5.71%	24.28%
17.Knowledge of a child's diagnosis would make a difference to the teaching strategies I would use.	A	90%	4.28%	5.72%
	B	91.42%	1.43%	7.15%
18.This child requires a behaviour management programme aimed at completing more work.	A	48.57%	14.28%	37.15%
	B	64.28%	17.14%	18.58%
19.The teacher could help this child by teaching organisational skills.	A	75.71%	5.72%	18.57%
	B	77.15%		22.85%
20.Children with learning difficulties require very structured lessons.	A	68.57%	5.72%	25.71%
	B	60%	12.85%	27.15%
21.Regular teachers need extra support to provide appropriate programmes for children with learning difficulties.	A	98.57%		1.43%
	B	100%		

Appendix C

Table 3: Table summary of total response percentages for each item of the questionnaire: Learning and Behaviour Disorders: Teachers' Attitudes and Expectations. See Appendix B for expanded version including statements.

Item	Agree	Dis-agree	Undec-ided	Item	Agree	Dis-agree	Undec-ided
1	A 97.14%		2.85%	12	A 74.28%	12.85%	12.85%
	B 90%	1.42%	8.57%		B 71.42%	12.67%	15.71%
2	A 21.42%	38.57%	40%	13	A 20%	52.85%	27.14%
	B 18.57%	35.71%	45.71%		B 17.14%	51.42%	34.28%
3	A 4.28%	95.71%		14	A 70%		30%
	B 1.42%	95.71%	2.85%		B 65.71%	4.28%	25.71%
4	A 7.14%	62.85%	30%	15	A 88.57%		11.42%
	B 15.71%	64.28%	20%		B 90%	1.43%	8.57%
5	A 7.14%	87.14%	5.71%	16	A 68.57%	12.85%	18.57%
	B 7.14%	95.71%	1.42%		B 65.71%	5.71%	24.28%
6	A 2.85%	92.85%	4.28%	17	A 90%	4.28%	5.71%
	B 1.42%	95.71%	7.14%		B 91.42%	1.42%	7.14%
7	A 7.14%	80%	12.85%	18	A 48.57%	14.28%	37.14%
	B 8.57%	77.14%	14.28%		B 64.28%	17.14%	18.57%
8	A 1.42%	80%	18.57%	19	A 75.71%	5.71%	18.57%
	B	85.71%	14.28%		B 77.14%		22.85%
9	A 10%	78.57%	11.42%	20	A 68.57%	5.71%	25.71%
	B 7.14%	85.71%	11.42%		B 60%	12.85%	27.14%
10	A 98.57%		1.42%	21	A 98.57%		1.42%
	B 98.57%	1.42%			B 100%		
11	A 5.71%	91.42%	2.85%				
	B	98.57%	1.42%				