THE ACADEMIC, PHYSICAL AND SOCIAL SELF-PERCEPTIONS

OF PUPILS WITH DOWN SYNDROME

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DECLARATION

This thesis includes material from work published or submitted for publication during the completion of this thesis. None of the material from the following references is identical to the work presented in this thesis. However, there is some overlap in the areas covered.

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Begley, A. (in press). The self-perceptions of pupils with Down Syndrome in relation to their academic competence, physical competence and social acceptance. *International Journal of Development, Disability and Education, in press.*

Begley, A. (in press). The academic, physical and social self-perceptions of pupils with Down Syndrome, in press. *Educational Psychology, in press.*

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SUMMARY

This thesis contains the work from two inter-related studies focusing on the self-perceptions of pupils with Down Syndrome. After a brief account of my value position in relation to the research in Chapter 1, Chapter 2 discusses the literature on self-perceptions. This discussion provides the rationale for study 1. In Chapter 3 the developmental profile of children with Down Syndrome is discussed. This provides the rationale for the choice of research instruments.

In study 1 the self-perceptions of 96 pupils with Down Syndrome between the ages of 8 and 16 years were assessed in three school related domains: academic competence, physical competence and social acceptance. Results from the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) and a Situations Grid suggested that pupils with Down Syndrome hold very positive self-perceptions in each school related domain, that self-perceptions become more positive with age, are more positive for female than for male pupils and remain positive regardless of school placement type (mainstream or special school).

Thefindings from study 1 left unanswered a number of questions concerning the self-perceptions of pupils with Down Syndrome. Furthermore, examination of individual scores revealed considerable differences in the self-perceptions of individual pupils. Therefore, the aim of study 2 was to investigate factors associated with high and low self-perceptions. Study 2 also allowed pupils, teachers and parents more freedom to participate in the research. Fourteen qualitative case studies were completed. The interview and observation data arising from study 2 revealed the heterogeneity in factors associated with the self-perceptions of pupils with Down Syndrome.

In the closing chapters: possible explanations for the study findings and suggestions for further research are raised, the utility of quantitative and qualitative approaches for studying pupils with Down Syndrome is discussed, and the implications of the findings for existing theories are covered.

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CHAPTER 1

INTRODUCTION

Many researchers now aim to understand their own place in the research process by confronting and being reflexive about their own values (e.g., Goodley, 1992; May, 1993). May (1993) argues, for example, that researchers should not seek the impossible, the elimination of value judgements. Instead researchers should ask themselves more important questions, such as, on what values their judgements are based, and how these values affect their judgements. Therefore, in this opening chapter I aim to reveal the values and experiences I brought with me to this research. In addition to identifying how these values may have affected the research, I am hoping that the information given in this chapter will enable readers to make their own decisions about the effect of my values and background.

I may be perceived as being too close to the research topic that I sought to investigate. However, my experiences gave me insights which I found useful during the research and I feel enabled me to get closer to the participants and their experiences. I grew up with my older sister, Belinda, who has severe learning difficulties. I have always wanted to understand what goes on inside my sister's mind and especially what makes her feel happy and sad, good about herself or bad about herself. Initially this interest led me to read for a degree in Psychology. During my degree I did voluntary work at a school for pupils with emotional, behavioural and learning difficulties, I organised horse riding classes for people with disabilities and I was employed by Surrey County Council during the summer vacation in 1995 to work with adults with learning difficulties.

After my degree, I was fortunate enough to be offered a PhD studentship researching the perceptions and aspirations of children and adolescents with Down Syndrome. I decided to focus on the school-related self-perceptions of pupils with Down Syndrome. I wanted to see how these pupils felt about themselves, how their self-perceptions

changed with age, whether the self-perceptions of female and male pupils differed and finally whether school placement affected self-perceptions.

My sister attended a special school and she appeared to be very happy there. She left at 19 years old and now attends a learning centre for adults with learning difficulties. My feelings about school placement are mixed because of my personal experiences and my views on equality. When my sister started school in 1974, I believe that a special school was the ideal place for her because she has severe learning difficulties. I do not feel that a mainstream school could have provided her with the special input and stimulation she required. Many mainstream schools are now more equipped to cope with diverse needs.

In addition to my concerns about a mainstream school in the 1970s being able to meet my sister's needs, I was also concerned about her social life in a mainstream school. During my sister's childhood and adolescence, she was bullied and teased by local children to the extent that even now at the age of 29 years she will not go outside the front gate alone. Therefore, my experiences have taught me that children can be extremely cruel and intolerant of differences and these experiences affect my views about integration. One of my main concerns for pupils with learning difficulties who attend mainstream school is the possibility that they may be subjected to negative social experiences, such as bullying. Therefore, I acknowledge that I am cautious about the ability of mainstream schools to protect pupils with learning difficulties from bullying.

The literature seems to concentrate on the academic benefits of integration. If academic achievements were the only standards used to assess success, my sister would not be considered an achiever. However, she is an achiever: she can now talk quite fluently although her topics are still limited, she can write her first- and surname, and she won a gold medal for swimming at the Disabled Olympics. Her greatest quality is her almost unfaltering happiness. My sister's happiness and her feelings of personal satisfaction appear to be more important to her, to myself and my family, than her academic achievements. Therefore, I wanted to examine what factors affected the happiness of pupils with Down Syndrome. However, I do recognise that the priorities

held by other pupils with learning difficulties are likely to be different, especially for pupils who are more able than my sister.

I am also aware that it is unfair to deny other children the opportunities that I had. My sister has taught me a great deal, especially patience and tolerance. Other children should also have the benefit of interacting with children and adults with learning difficulties. When carrying out my research, for example, one pupil decided he did not want to co-operate. Instead he threw my book around, tried to rip out the pages, walked around and climbed under the tables. At times like these during my research, it made me realise I was lucky to have grown up with my sister and through my interactions with her, learnt the art of patience and extracting the funny or positive side of any situation.

Similarly, I hope that I have helped my sister's development by, for example, interacting with her, helping her with homework and explaining the right and wrong way to act in certain situations. Therefore, I feel interactions between children with and without learning difficulties can be mutually beneficial to both parties.

Hockey (1993) identified a number of advantages and disadvantages about being familiar with a research setting. I felt a number of these were relevant to this research. The first advantage for me was the lack of culture shock or disorientation on entering special schools. Hockey (1993) believed that the anxiety provoked by a new and unfamiliar setting may affect researchers' perceptions. I feel I benefited from the fact that I grew up going to my sister's special school for numerous events, from country dancing, to all manner of fund-raising events, such as, barbecues, fancy dress competitions and fireworks displays. Without growing up interacting with my sister and her friends, I feel I may have found some features of special schools very distressing. Even now I find it upsetting to see children and adolescents who are unable to move independently because of physical disabilities, or who are unable to communicate their needs, verbally or otherwise. Thankfully, I have been given the opportunity to see that in spite of their difficulties, these children have individual personalities, and strengths. Furthermore, they are as capable as other children, of experiencing positive emotions, such as, happiness and pride.

I also feel that without my experiences, my work with individual pupils with Down Syndrome may have been frequently interrupted. During my research, for example, one pupil threw a chair across the room, one pupil shouted obscenities at his teacher, and one pupil, who was paralysed and had no language, tried to communicate a need by shouting and crying. These episodes, although distressing, were familiar enough so as not to distract me from observing or interviewing the pupil with whom I was working.

The second advantage Hockey (1993) noted was the possibility that researchers' social and psychological understanding could enhance rapport and communication between the researcher and the participants. I felt that talking about my personal experience and knowledge facilitated my interviews with parents, teachers and pupils. Parents, especially, appeared to want to share their personal experiences and to hear about my experiences. Hockey (1993) also noted that having such knowledge can allay participants' fears that researchers only have an academic understanding of the research topic. Parents and teachers are likely to come into contact with professionals who have no direct experience with children with learning difficulties. Such professionals may not be able to empathise with parents to the same extent as someone with direct experience. I was able to share frustrating, disappointing, happy and funny experiences with both parents and teachers because a number of our experiences overlapped. Since I have few friends with an insight into learning difficulties, I enjoyed the interviews because they gave me an opportunity to talk to people who understood what it was like to live with a person with severe learning difficulties. Hopefully, the parents and teachers enjoyed the interviews for similar reasons. I also shared my personal experiences with the pupils when I felt our experiences were similar. For example, one pupil shared my love of horse-riding, one pupil shared with me the experience of parental divorce, and a number of pupils had, like myself, experienced bullying.

Related to the issues of rapport and communication, Hockey (1993) also wrote about the likelihood of participants revealing more intimate details of their lives to someone whom they considered to be empathetic. I was willing to talk openly to participants

about my feelings and experiences because I felt comfortable doing so with people who had similar experiences to my own. Pupils, parents and teachers all appeared to be willing to reveal personal information. For example, without being asked one pupil talked in depth about her parent's separation, teachers talked about their negative feelings towards pupils' parents and parents talked about their disappointments in relation to their children.

Hockey (1993) noted two relevant disadvantages of being too familiar with a setting. First, this can lead to taken-for-granted assumptions. Second, researchers may fail to note important aspects of a setting because to them such aspects are neither new or startling. Therefore, I had to avoid making assumptions about the representativeness of my views and perceptions. I was helped in this by remaining aware of the differences between my experiences and those of my participants. The participants were talking about their experiences from the viewpoint of themselves, as pupils, parents or teachers. None of the participants shared my experience of being a sibling of a person with severe learning difficulties. Furthermore, every person with learning difficulties is different. The differences between my sister and each case study pupil far outweighed their similarities. Likewise, due to individual differences, working with the first few pupils with Down Syndrome did not help me to know how to approach and interact with others. Pupils differed not only in age and gender but also in, for example, personality, strengths, limitations, motivation, willingness to co-operate, type and severity of their learning difficulties. The additional problems relating to my personal experiences, are discussed in Chapter 9.

In summary, I feel my experiences have provided me with a personal interest in my research. However, I needed to aggregate a more balanced view of the research topic by gaining an insight into the relevant theoretical issues. Therefore, I have added to my personal knowledge by reading literature on areas directly and indirectly related to my research, such as, the self-concept, learning difficulties, and school-placement. A review of the background literature is presented in the following two chapters.

CHAPTER 2

FACTORS AFFECTING PUPILS' SELF-PERCEPTIONS OF THEIR ACADEMIC COMPETENCE, PHYSICAL COMPETENCE AND SOCIAL ACCEPTANCE

2.1 Introduction

In this literature review it is necessary, due to word restrictions, to limit the discussion of the self-concept to the three school-related domains this research will examine. Therefore, pupils' self-perceptions of academic competence, physical competence and social acceptance will be discussed, along with literature on age and gender effects. The impact of significant others (i.e., teachers, parents and siblings), on the self-perceptions of pupils with Down Syndrome will also be discussed.

2.2 School-related self-perceptions

One of the fundamental problems faced by researchers investigating the self-concept is the lack of a universally agreed definition of the self-concept and the fact that the numerous definitions advanced tend to be broad and vague. The model advanced by Shavelson, Hubner and Stanton (1976) has been adopted for this research. It defines the self-concept as a hierarchical, multidimensional construct. According to this model (shown in Figure 1), there is a general self-concept at the apex of the hierarchy. The general self-concept then splits into two domains, namely the academic self-concept and non-academic self-concept (consisting of physical, social and emotional self-concepts). Within each domain of the self-concept (e.g., academic), individuals have separate and more specific perceptions (e.g., maths, writing and reading) which they combine to form a more global concept of their abilities within that domain (e.g., their academic competence).

This model was chosen for a number of reasons. First, validation research has supported the multidimensional structure and hierarchical ordering of the self-concept (e.g., Byrne & Shavelson, 1996; Marsh, 1993; Marsh & Holmes, 1990; Marsh, Smith,

Barnes & Butler, 1983). Second, the model is currently accepted (e.g., Harter & Pike, 1984; Marsh, 1989; Montgomery, 1994). Furthermore, the model implies that self-perceptions, although intercorrelated, operate as separately interpretable entities. Therefore, the model proposes that each dimension of the self-concept (e.g., the academic, physical, social self-concept) can be measured as a separate construct.
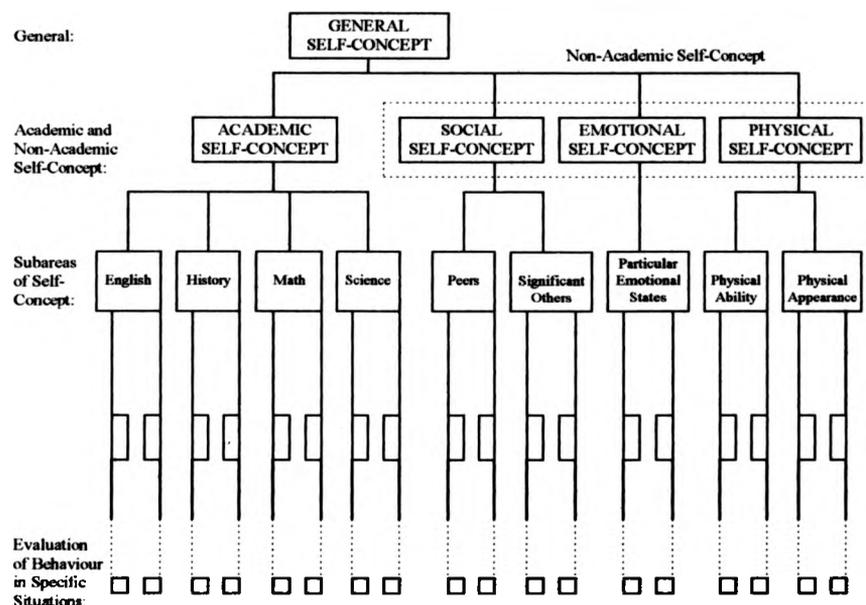
Figure 1. The multidimensional, hierarchical model of the self-concept proposed by Shavelson, Hubner and Stanton (1976). From Shavelson et al. (1976).

However, recent research has questioned the structure of the model's academic domain (Marsh, Byrne & Shavelson, 1988; Shavelson & Marsh, 1985) and social domains (Byrne & Shavelson, 1996). This will be discussed in more detail with regards to self-concept assessment (see Chapter 4). Furthermore, researchers have questioned the applicability of the model's structure for the self-concept of children with learning

disabilities (Renick & Harter, 1989) and children, defined by the authors of the research, as "educable mental retarded" (Silon & Harter, 1985). Taking these criticisms into account, the aim was not to assess the academic, physical, and social self-concept of pupils with Down Syndrome. Instead, pupils were asked about selected self-perceptions within the academic, physical and social domains.

2.3 Academic self-perceptions

According to James' (1890) Theory of Self-Worth, a person's self-worth is based on the ratio of his/her successes (competence) to his/her pretensions (subjective importance of success). Therefore, a person's self-worth is likely to be, in part, determined by his/her self-perceptions in areas in which he/she aspires to succeed (Harter, 1990). As pupils with Down Syndrome spend a considerable amount of their time in school, success in school-related areas is expected to be important to their feelings of self-worth. This suggestion is only speculative because, to the author's knowledge, no research exists on the pretensions of pupils with Down Syndrome. However, research with pupils without learning difficulties suggests that academic competence, physical competence and social acceptance are the domains children use, from a very early age, to define themselves (Harter & Pike, 1984). Success in core academic domains is also found to correlate with pupils' feelings of general self-worth (Harter, 1990; Marsh, 1993). Furthermore, pupils are expected to experience difficulties with discounting competence in school-related areas because such competence is considered by our society, and probably by the significant others in pupils' lives, as an index of individuals' worth.

   In addition to the expected importance of school-related self-perceptions, educators and researchers have long recognised the central role played by the self-concept in the educational process as being influenced by, and being an influence on, school performance (e.g., Burns, 1979/1982; Blatchford, 1992; Purkey, 1970; Rosenberg, 1990; Wylie, 1979). According to Burns (1982), a child experiencing success in school is likely to internalise a favourable view of him/herself, to enjoy more satisfying relationships with others as a result of his/her achievements, and to increase his/her

motivation to approach academic tasks. Conversely a child with negative self-perceptions is expected to feel relatively worthless and ineffectual, to reduce his or her effort or to give up in the face of difficult tasks (Chapman, 1988).

Although this research is primarily concerned with self-perceptions, it is necessary to briefly discuss motivation. This is because perceptions of competence and motivational orientations towards classroom learning are argued to be strongly related for pupils with typical development (e.g., Deci & Ryan, 1987; Harter, 1992; Ryan, Connell & Grolnick, 1992; Williams & Gill, 1995) and pupils with learning disabilities (Deci, Hodges, Pierson & Tomassone, 1992; Renick, 1986; as cited by Harter, 1992). According to Deci and Ryan (1985/1987), for example, the relationship between perceived competence and effort in children without learning difficulties is mediated by intrinsic motivation (e.g., one's propensity to engage in challenging tasks, to be motivated by curiosity and a desire for independent mastery). Furthermore, Harter (1992) concluded that children without learning difficulties who develop a pervasive and generally intrinsic motivational orientation have higher self-perceptions of their ability than do their extrinsically motivated counterparts. Since this data is correlational it is not possible to determine the causal factor. However, being internally motivated may affect perceptions of competence in children without learning difficulties.

In summary, research on the motivation of pupils without learning difficulties recommends a teaching strategy that encourages self-determination, independence, and an inner sense of the value of learning (Ryan et al, 1992). In light of this research, Ryan et al. (1992) question the utility of educators' move towards a 'back-to-basics' philosophy. According to Ryan et al. (1992) advocates of this philosophy want schools to employ more external direction, more authority, more salient rewards and more control. Such an approach would result in learning being prompted externally, by pressure to conform and/or fear of failure.

However, a back-to-basics approach may be adaptive for pupils with Down Syndrome. Harter (1992) reported that pupils with learning difficulties in mainstream schools show a greater external orientation than their peers without learning difficulties. Harter (1992)

also argued that an extrinsic orientation may be realistic for pupils with learning difficulties. This is because the intellectual difficulties experienced by pupils with learning difficulties mean that, in comparison to pupils without learning difficulties, they are more dependent on teachers for help and direction, they are more likely to avoid challenge and they also have a greater need for external feedback (Harter, 1992). Therefore, it may be more adaptive for pupils with Down Syndrome, due to their learning difficulties, to be extrinsically orientated.

In summary, motivational research is relevant to investigations of self-perceptions because such research highlights potential causes and/or effects of low self-perceptions. Research is required to establish whether internal or external motivation is associated with high self-perceptions for pupils with Down Syndrome and other pupils with learning difficulties. It will also be necessary to ascertain whether, as suggested by Harter (1992), an extrinsic orientation is more adaptive for pupils with learning difficulties. Furthermore, if internal or external motivation is found to be related to high self-perceptions in pupils with Down Syndrome, research into factors encouraging internal or external motivation may have practical implications for raising pupils' self-perceptions.

2.3.1 Academic self-perceptions and learning difficulties

It is not surprising, given the association between self-perceptions and achievement, that researchers have examined the self-perceptions of pupils with learning difficulties. Montgomery (1994) argues that the common assumption among researchers and professionals in the field of learning difficulties, is that pupils with learning difficulties will have lower self-concepts. Raviv and Stone (1991) discussed three of the main bases for this assumption. First, is the impact of school failure and negative feedback. Second, is the stigmatising effect of being labelled as different and singled out. Finally, is characteristics inherent in the syndrome, for example, cognitive and social-perceptual deficits, that may impair the development of the self-concept.

Considering the latter, it is surprising that so little research exists on the self-concept of pupils with learning difficulties due to the same cause. Such research could help elucidate what factors contribute to, or mitigate against, a positive self-concept. Pupils with Down Syndrome present a suitable sub-group for research for at least three reasons. First, children with Down Syndrome form the largest single grouping amongst children with learning difficulties (Thomson, Ward & Wishart, 1995) and account for 12.6 per 10,000 births (Cuckle, Nanchahal & Wald, 1991). Second, people with Down Syndrome experience specific difficulties (for summary see; Begley & Lewis, 1998). Finally, there is a personality stereotype associated with Down Syndrome (discussed in Chapter 3).

2.3.2 Academic self-perceptions and school placement

It is timely to assess the impact of educational integration because in January 1998, 58 per cent of pupils with Special Educational Needs were in maintained nursery, primary and secondary schools, while 39 per cent were in special schools or Pupil Referral Units. The remaining 3 per cent were in independent schools (DfEE, 1998). However, the number of pupils in mainstream facilities also included those dually-registered in both a special or pupil referral unit and also another school. Therefore, these numbers do not reveal how much time the dually-registered pupils with special educational needs spend in mainstream schools. Furthermore, the statistics do not reveal the numbers of pupils with Down Syndrome in mainstream schools. According to more dated research, the majority of pupils with Down Syndrome are still being educated in special schools, and many parents are still being pressured to accept a place for their child in a special school (Petley, 1994).

Investigations into self-concept domains, have led researchers to reject the assumption of an overall lower self-concept for pupils with learning difficulties. The proposed lower self-concept of pupils with learning difficulties may only apply to self-perceived academic competence (e.g., Grolnick & Ryan, 1990; Montgomery, 1994; Renick & Harter, 1989). Across these three studies pupils with learning difficulties were

found to have lower academic self-concepts. This consistent result was found in spite of the studies involving different samples (i.e., in terms of age, gender, ethic composition, and classification of learning difficulties), different measures of academic self-concept, and different comparison groups (i.e., pupils without learning difficulties and high-achievers, pupils without learning difficulties matched on intelligence quotient, and average-achieving pupils without learning difficulties). Similarly, from his review of the self-concept of children with learning difficulties, Chapman (1988) concluded that the findings were unequivocal in showing that children with learning difficulties across a range of studies consistently reported lower academic self-concepts than pupils without learning difficulties.

Furthermore, pupils with learning difficulties placed in special educational programs tend to have global self-concepts comparable with those of pupils without learning difficulties (Coleman, 1983), and considerably higher self-concepts than pupils with learning difficulties in mainstream schools not yet placed in a special program (Butler & Marinov-Glassman, 1994; Chapman, 1988).

However, the supposedly unequivocal finding of a lower academic self-concept has been questioned by recent research into school placement effects. Pupils in self-contained classes aged 9 to 12 years had higher self-perceived academic competence then their counterparts in mainstream classes who were matched for academic attainment (Eshel, Katz, Gilat & Nagler, 1994). However, Leonardi (1993) found that pupils with learning difficulties (aged 8.2 and 11.3 years) in self-contained classes had lower academic self-concepts then their low-achieving peers. Unfortunately, because the samples in these two studies are not comparable, it is difficult to draw any firm conclusions. One limitation of Leomardi's (1993) study was that the comparison pupils were not matched for academic ability. In discussing the limitations of their study, Eshel et al. (1994) acknowledged that children's placement in self-contained classes may not have been random. For example, pupils assigned to self-contained classes may have needed special attention more urgently, and/or the pupils may have remained in mainstream classes because of parental persistence and high academic expectations.

Eshel et al. (1994) did not find a difference between the academic self-perceptions of older pupils (14.5 to 17.5 years) in self-contained and mainstream classes who were attainment-matched. According to Eshel et al. (1994) the difference reported for younger pupils may reflect teachers' feedback on achievement and behaviour in elementary self-contained classes. The effect on self-perceptions of age-related school changes is discussed in more detail below.

However, in addition to assessing the impact of integration on self-perceptions, it is necessary to establish the reason(s) for the purported lower academic self-perceptions of pupils with learning difficulties in mainstream schools. Some researchers (e.g., Coleman, 1983; Chapman, 1988) have turned to Festinger's (1954) Social Comparison Theory for explanation. According to this theory, people have a basic drive to evaluate themselves. In the absence of some objective standard of comparison, people will use similar others to estimate their competence. Furthermore, people are expected to feel better about themselves to the extent that their abilities and attributes are superior to others, and the knowledge that they are inferior can lower self-esteem (e.g., Klein & Kunda, 1993; Wills, 1981). Therefore, Social Comparison Theory predicts that pupils with Down Syndrome in special schools will perceive themselves as competent because their reference group also experience learning difficulties. By contrast, pupils with Down Syndrome in mainstream schools are predicted to perceive themselves as less able because they will be comparing themselves to more competent classmates.

Although pupils with Down Syndrome in mainstream schools may be less competent than their mainstream peers, research suggests they are more competent than their counterparts in special schools. In comparison to pupils in special schools, pupils with Down Syndrome in mainstream schools have higher academic attainment, in numeracy, comprehension and greater gain in mental age over 2 years (Casey, Jones, Kugler & Watkins, 1988) and in reading, use of written information, number skills and writing skills (Sloper, Cunningham, Turner & Knussed, 1990). Therefore, if pupils with Down Syndrome use alternative or additional processes to social comparison on which to base their self-perceptions, the academic self-perceptions of pupils with Down

Syndrome in mainstream schools may be higher then the academic self-perceptions of their counterparts in special schools. Sloper et al. (1990) hypothesised that the difference between the academic attainment of pupils in mainstream and special schools may be due to mainstream teachers placing more emphasis on academic skills, whereas special school teachers focus more on self-help, socialisation and language skills. If correct, academic achievement may be more salient to the general self-concept of pupils with Down Syndrome in mainstream schools, in comparison with their counterparts in special schools.

However, being in a mainstream school may not automatically lead to different self-perceptions. The self-perceptions of pupils with Down Syndrome in mainstream schools may, for example, be protected by selective comparisons. Festinger's (1954) theory was revised on the basis of research which revealed that instead of employing social comparisons to appraise themselves accurately (original theory), people are more likely to use comparisons to enhance or protect self-perceptions (e.g., Wills, 1981; Wood, Taylor & Lichtman, 1985). If a child is less competent or valued then others, he/she may adopt strategies to avoid low self-perceptions (Crocker & Major, 1989). These include, comparing his/her competence within the stigmatised group (i.e., other pupils with learning difficulties) rather then looking to the more dominant and competent group (i.e., mainstream pupils), selectively devaluing the activity on which he/she is failing (e.g., academic tasks), and valuing activities at which he/she is successful (e.g., hobbies).

The Distinctiveness Theory also offers an explanation for the lower self-perceptions of pupils with learning difficulties in mainstream schools. According to this theory, the academic difficulties experienced by pupils with Down Syndrome may have more impact on their self-perceptions when they are in mainstream school. This is because distinctive characteristics that differentiate a person from his/her social context (e.g., academic difficulties compared with classmates) are argued to have more impact on a person's identity and self-perceptions then shared characteristics (e.g., age compared with classmates) (McGuire & McGuire, 1987). One of the assumptions underlying the Distinctiveness Theory is that humans' cognitive processing is selective, such that

people tend to notice selectively the more peculiar aspects of a complex stimuli. In addition to distinctiveness, McGuire and McGuire (1987) also recognised additional aspects likely to affect the saliency of dimensions in a person's social environment. These included, for example, aspects that a person has been reinforced for noticing in the past, and aspects relevant to a person's enduring values or transient need states. Academic success is expected to be a salient issue because it is likely to be linked in pupils' minds with rewards and praise. Furthermore, academic success is valued by society.

Because the predictions of Distinctiveness Theory have not, to the author's knowledge, been tested with regards to competence, it is not known whether a person's competence becomes salient when his/her social environment consists mostly of more competent others. Furthermore, it is not possible to ascertain whether a particular characteristic (e.g., competence), would continue to be distinctive for a pupil with Down Syndrome who spends every school day in a class of more competent peers.

In contrast to the predictions of the Social Comparison and Distinctiveness Theory, other authors have presented explanations for why pupils with learning difficulties in mainstream school are expected to have higher self-perceptions. Critics of segregated education argue that segregation is opposed to the values of equality and equal opportunity, and creates negative effects for individuals labelled as disabled (Soder, 1989). As a person's social structure is believed to affect his/her self-perceptions (e.g., Osborne, 1996; Pollard, 1994), the self-perceptions of pupils with Down Syndrome may be lowered by the stigmatising effect of being identified as exceptional and isolated from the wider school population for instruction purposes (Coleman, 1985).

The Social Identity Theory (Tajfel & Turner, 1979) offers a framework for understanding the suggested negative effects of segregation. According to this theory people derive an understanding of who they are and who they are not, and evaluate themselves on the basis of their group memberships. Therefore, as the prestige of a person's group is believed to contribute to his/her self-perceptions, belonging to a negatively valued social group may diminish self-perceptions. Harris (1995) commented

that people with learning disabilities have been categorised by people without disabilities as 'belonging' to a devalued group with rigid boundaries based on IQ levels. Harris (1995) argued that because it is relatively easy to categorise people with Down Syndrome, they are vulnerable to stereotypical views in spite of with-in group heterogeneity. Furthermore, their group tends to be an underprivileged social group excluded from mainstream society.

However, in order to apply the Social Identity Theory to pupils with Down Syndrome, three of the theory's assumptions have to be met. First, pupils with Down Syndrome would need to be aware they are so labelled. Second, pupils would need to be aware that the label of Down Syndrome carried with it negative connotations. Third, pupils would have to consider such membership as a salient aspect of their self-concept.

In relation to the first assumption, some adults (Szivos & Griffiths, 1990) and adolescents (Szivos, 1993) with 'mental retardation' (term used by these researchers) appear to be aware of the stigma directed towards them. Szivos (1993) found that adolescents with the greatest awareness of stigma had the lowest self-esteem, and also felt themselves to be the most different from others without learning difficulties.

However, these findings may not apply to pupils between the ages of 8 and 16 years. Furthermore, awareness may be affected by school placement as well as age. Pupils with Down Syndrome in segregated special schools, for example, may be protected, to an extent, from the stigma attached to labels like learning difficulties and Down Syndrome. In special schools, pupils with Down Syndrome may have high self-perceptions because they may not be subjected to bullying by their peers who also have special needs. By contrast, pupils in mainstream schools may be exposed to the negative evaluation of labels like Down Syndrome, learning difficulties and special education.

Coleman (1985) has also questioned, on the basis of the Developmental-Cognitive perspective of self-concept development, whether pupils with learning difficulties would have sufficient cognitive development to understand abstract social information, such as, society's perspectives on those who hold devalued social roles. This argument may

help explain school placement effects. Because pupils with Down Syndrome in mainstream schools are likely to be more able then their counterparts in special school, they may be more aware of the stigma in society. If correct, such awareness may lower the self-perceptions of pupils with Down Syndrome integrated in mainstream schools.

However, awareness of stigma, may not lower academic self-perceptions. Research reviewed by Harris (1995) suggests that in comparison with members of inclusive groups, members of excluded or devalued groups are less likely to draw on their group membership to form their self-perceptions. According to this argument, pupils with Down Syndrome may not draw on their group membership because their group is more devalued and less powerful then the group in which children without learning difficulties belong.

Finally, the category of learning difficulty or Down Syndrome may not be salient to pupils with Down Syndrome. Fine and Ash (1988), for example, argue that researchers should not assume that learning difficulties are central to the self-concept because people with learning difficulties have other attributes and social identities.

In summary, there are many different hypotheses and theories about the potential effects of school placement on self-perceptions. However, with no research specifically on the self-perceptions of pupils with Down Syndrome in special and mainstream schools it is not possible to assess their applicability.

2.3.3 Academic self-perceptions and age

Numerous researchers have investigated the potential effect of age on self-perceptions. Wylie (1979) concluded, after her extensive review, that no association exists between age and self-regard scores. However, recent researchers have argued against this claim. McCarthy and Hoge (1982), for example, argued that the research available to Wylie at the time of her review, and on which she based her conclusions, was largely cross-sectional. Furthermore, these authors argued that longitudinal studies, which are less subject to distortion from sampling error, suggested an increase in self-esteem with age. Young children (7 years and below) tend to overestimate their abilities and

exaggerate their competence (Harter & Pike, 1984). Some researchers have found a decline in self-esteem during middle childhood (for review see Rosenholtz & Simpson, 1984). Other researchers have found an increase in self-esteem during adolescence (e.g., Bachman & O'Malley, 1977; Lintunen, Leskinen, Oinonen, Salinto & Rahkila, 1995; McCarthy & Hoge, 1982). From his literature review, Marsh (1989) concluded that the self-concept follows a U-shaped trend, with decreases in different domains during pre-adolescence, a reverse in this decline during middle-childhood and a continuous rise in the self-concept during late-adolescence and early-adulthood.

   The primary reason advanced for these age differences is a developmental change in self-assessment of attainment (for reviews see; Damon & Hart, 1988; Harter 1990). Young children appear to base their competence evaluations on absolute or individual standards and are argued to lack the capacity to distinguish between the real and idealised or fantasised self (Harter, 1990). During middle-childhood, children develop the capacity to make social comparisons; at this age they begin to base their competence evaluations on normative standards generated from comparisons with others.

   The literature on achievement motivation, mentioned above, is also relevant to age effects on self-perceptions. Pupils' intrinsic motivation has been found to decline as pupils progress through school, while extrinsic motivation appears to increase (Harter, 1981). Some authors feel that changes in the school environment have direct implications for pupils' motivational orientations and perceived competence. With age, the school climate becomes increasingly more evaluative and competitive and social comparison becomes more important (Flink, Boggiano, Main, Barrett & Katz, 1992). According to Ryan et al. (1992), internal motivation declines because, with age, school becomes increasingly controlling, and the work becomes less inherently interesting. Therefore in addition to the above-mentioned developmental changes, differences in curriculum and assessment practices in secondary schools are believed to increase the likelihood of pupils defining their worth in terms of relative performance, rather then

individual progress (e.g., Frey & Ruble, 1985; Leo & Galloway, 1996; Rosenholtz & Simpson, 1984).

Researchers have not investigated whether self-assessment in pupils with Down Syndrome follows the same developmental path and/or progresses at the same pace as pupils with typical development or other pupils with learning difficulties. In the absence of such research, it is insightful to examine literature on the development of the self-perceptions of pupils with learning difficulties.

The self-perceptions of pupils with learning difficulties are expected to decline with age, especially in mainstream school. This is due to repeated experiences of failure and increasing demands for performance (Raviv & Stone, 1991) and the development of the cognitive capacity for, and concern with, social comparison (argued to occur around middle-childhood; e.g., Nicholls, 1978; Ruble, Bogganio, Feldman & Loebl, 1980).

However, Hurst and Baldwi, (1994) found an increase in the self-worth of adolescents with disabilities between 13 and 18 years. This was followed by a decrease in self-worth between 19 and 22 years. Hurst and Baldwi (1994) explained this decline by suggesting that outside school, adolescents with learning difficulties may become aware of their lack of opportunities for economic and social participation, and the ambivalent or negative attitudes of others. The study was based on standardised interviews conducted with a large, representative sample of adolescents (aged between 13 and 22 years) with a range of disabilities. However, the implications of the study for pupils with Down Syndrome are limited for two reasons, First, the majority of the sample had multiple disabilities, 70 per cent of the sample had a mental disability, 41 per cent had a disability which often had a physical origin (e.g., personal care, locomotion, disfigurement, dexterity disability), and 25 per cent had a sensory disability. Therefore, there are limits on the comparisons that can be made between this sample and the study sample of pupils with Down Syndrome. Second, the measure used to assess self-esteem may have biased the results. Self-esteem was measured by asking respondents 12 questions which required a yes/no response. On inspection of these questions, the author found that giving more 'yes' responses would lead to a lower self-esteem score.

To obtain the highest self-esteem score respondents had to answer eight questions with a 'no' response and four questions with a 'yes' response. Therefore, further research is required to establish whether the age differences in the study, reflected developmental differences in self-perceptions or in the tendency for people with learning difficulties to be acquiescent in their responses (discussed further in Chapter 4).

2.3.4 Academic self-perceptions and gender

Another area that researchers have attempted to link to self-concept is gender. From her extensive review of research into gender effects, Wylie (1979) concluded that, "perhaps the factor structures for overall self-regard are similar between the two genders but females obtain higher scores on some factors, males on others" (p. 272). Some researchers have found domain-specific gender differences that tend to conform to gender stereotypical expectations. Males tend, for example, to have higher self-perceptions than females in competence domains, such as mathematics, while females tend to underestimate their academic abilities (Blatchford, 1992; Marsh, 1989; Wigfield, Eccles, MacIver, Reuman, Midgley, 1991). Females tend to rate themselves higher than males in verbal and social domains (Joseph, Markus, & Tafarodi, 1992). Unfortunately, because of the absence of necessary controls, it is not possible to conclude that these findings reflect gender differences in self-perceptions; instead they may reflect the response bias exhibited by boys, who appear to give more self-congratulatory responses to self-report measures (Maehr & Nicholls, 1980).

In summary, research suggests that male and female pupils have higher self-perceptions in gender-appropriate domains, and that boys tend to have higher self-perceptions than girls for academic competence. However, the above research was carried out with pupils without learning difficulties. Therefore, it is not possible to draw any firm implications for pupils with Down Syndrome.

Little evidence exists on gender differences in the self-perceptions of pupils with learning difficulties. This may reflect researchers' assumptions that learning difficulty is the most salient status of pupils with a learning difficulty. Thereby, rendering gender,

age or socio-economic effects as uninteresting, non-existent or having little impact. Alternatively, the lack of research into gender differences may reflect the assumption that pupils with learning difficulties are a homogeneous group.

One study that has covered this area revealed that female adolescents with disabilities have lower self-worth than males with learning difficulties (Hurst & Baldwi, 1994). However, because the gender composition of the sample was not given, it is difficult to establish whether the two gender groups were of a sufficient size to draw any firm conclusions. Furthermore, the 12 questions used to assess self-esteem tended to focus on appearance (e.g., 'Do you often worry a lot about the way you look?'), and social acceptance (e.g., 'Do you worry a lot about what others think of you?'). Appearance and social acceptance may be more salient to female adolescents, and females may also have more insecurities about their ability in these areas. Therefore, the lower self-esteem of females may be an artefact of the scale. Alternatively, the gender difference may reflect the tendency for males to be more demonstrative about their abilities.

Other studies on gender differences among pupils with learning difficulties have tended to focus on the identification process. Boys are more likely than girls to be identified as having learning difficulties (for review see Vogel, 1990). These findings have led to the suggestion of a selection bias operating on teachers' referral processes. Bibby, Lamb, Leyden & Wood (1996) suggest two underlying reasons for this bias. First, the greater propensity for boys to be, or to be seen as, more disruptive then girls. Second, teachers may hold higher expectations about the performance of boys then girls. Therefore, boys are more likely to fall below their thresholds for ability and attainment. Bibby et al. (1996) reported research showing that boys are more likely than girls, to receive negative feedback from teachers. However, this negative feedback tended to refer to lack of effort or motivation, rather then ability, while the negative feedback directed to the girls tended to imply they lacked intellectual ability.

On the basis of the above research, male pupils with learning difficulties may be more vulnerable to low academic self-perceptions for two reasons: first, male pupils appear to

receive more negative feedback, and second, the academic levels set by teachers render it harder for boys with learning difficulties to reach the expected standards. However, girls with learning difficulties may also be vulnerable to low academic self-perceptions. This is because teachers' feedback implies that girls lack the ability to succeed, rather than a more controllable entity, such as, effort or motivation.

Research on the academic achievement of pupils with Down Syndrome suggests that female pupils show higher academic attainment than boys (Sloper et al., 1990). Girls with Down Syndrome also scored significantly higher on expressive language skills than boys at the start of a 2 year study carried out by Casey et al. (1988) and achieved higher reading scores. On the basis of this evidence, female pupils with Down Syndrome may have higher academic self-perceptions than male pupils.

2.4 Physical self-perceptions

In addition to academic competence, there are a number of reasons for investigating the self-perceptions of pupils with learning difficulties with regards to their physical competence. First, Duda, Fox, Biddle and Armstrong (1992) reported research suggesting that accomplishment in school sport provides an important contribution to students' overall sense of worth and status in the school system. Second, because perceived physical competence appears to be a mediator of physical participation and fitness (Marsh, Hey, Roche & Perry, 1997) it may have important implications for pupils' health. Finally, physical education is seen as a viable medium for the development of peer relationships. Weiss and Duncan (1992) found that being good (teacher ratings) and believing one's self to be good in sport was strongly related to being successful in peer relationships (self- and teacher ratings).

Unfortunately, there is a lack of research on the physical self-perceptions of pupils with learning difficulties. In one of the few studies covering this area, Margalit, Raviv and Pahn-Steinmetz (1988) found that pupils with learning difficulties taught in special classes did not rate themselves lower then their mainstream peers for physical or cognitive competence. However, Margalit et al. (1988) did not provide details on which

subjects the pupils with learning difficulties attended mainstream classes. Pupils with learning difficulties, for example, may have attended special classes for physical and academic activities. Therefore, pupils with learning difficulties may not have had low physical and cognitive self-perceptions because they based these self-perceptions on comparisons with their classmates in physical and cognitive lessons (i.e., pupils with learning difficulties).

However, Margalit et al. (1988) did find differences in the variables pupils' considered to be mediators of social competence: pupils with learning difficulties saw emotional and physical competence as mediators; whereas pupils without learning difficulties saw cognitive aspects as more important. Because children with learning difficulties account for their social competence in terms of their physical functioning, the physical and social self-perceptions of pupils with Down Syndrome may be lowered because of the difficulties they often experience in sports. Furthermore, in light of the potential problems pupils with Down Syndrome may experience with social acceptance (discussed below), physical competence may provide an important arena for intervention to improve social relationships and/or self-perceived social acceptance.

2.4.1 Physical self-perceptions and age

As with academic self-perceptions, age differences may be expected in physical self-perceptions because of the developmental changes in self assessment. In their study of age differences, Weiss, Ebbeck, and Horn (1997) found that during mid- to late-childhood (8 to 9 years) children used adult feedback (e.g., parents and coaches) to form their self-perceptions. The reliance on peer comparison and evaluation to form self-perceptions increased during late-childhood and early-adolescents (10 to 13 years). From early- to late-adolescents (14 to 17 years) there was a shift from peer to self-referenced criteria for forming self-perceptions based on, for example, degrees of self-improvement, achievement of self-set goals and liking for physical activity. It is not clear what implications these age-related changes have for the physical self-perceptions of pupils with Down Syndrome. However, the physical self-perceptions of pupils with

Down Syndrome in a mainstream school may be expected to drop when they begin to rely on peer comparisons.

2.4.2 Physical self-perceptions and gender

Weiss et al. (1997) also found gender differences in the sources used to form physical self-perceptions during the adolescent period. Adolescent females showed a preference for self-comparison information and evaluation from peers and coaches. Adolescent males preferred to base their assessments of physical competence on peer comparisons. Therefore, being surrounded by a more physically competent peer group in mainstream schools may have a greater impact on the physical self-perceptions of adolescent boys with Down Syndrome.

However, research on pupils without learning difficulties suggests that male pupils rate themselves as more physically competent (Duda, Fox, Biddle & Armstrong, 1993; Williams & Gill, 1995) and are more interested in physical activities (Williams & Gill, 1995) then female pupils. These differences may be due to different socialisation experiences for boys and girls resulting in physical competence being regarded as more important by males (Weiss & Duncan, 1992). Furthermore, teachers appear to view boys as more physically competent then girls, and in comparison with boys, girls' self-perceptions are more highly correlated with teachers' perceptions (Granlesse, Turner & Trew, 1989). Because girls assess themselves using the evaluations of adults, their physical self-perceptions may be low because teachers perceive them as less physically competent then boys.

2.5 Social self-perceptions

The focus thus far has been on self-assessments of competence. However, the self has long been defined as a social construct, incorporating a person's perceptions of how he/she is regarded by significant others (Cooley, 1902; James, 1890; Mead, 1934). Peers are likely to play a significant part in the lives, and self-perceptions, of pupils.

On the basis of their research with adolescence with disabilities, Hurst and Baldwi (1994) concluded that "a prime function of social contact is to boost self-esteem or the feeling of being valued and accepted by others" (p. 85). Hurst and Baldwi (1994) based this conclusion on their finding that self-esteem was highest amongst those who were most active socially or who reported having "satisfactory" friendships. The more isolated the adolescents were, the lower their self-esteem. However, as Hurst and Baldwin's (1994) data are only correlational, it is equally possible that high self-esteem may lead to increased social participation and more satisfactory relationships.

2.5.1 Social self-perceptions and learning difficulties

Researchers have also found a link between academic achievement and social competence and peer acceptance in children without learning difficulties (Chen, Rubin & Li, 1997; Wentzel & Asher, 1995). In light of this link it is important to assess the social acceptance of pupils with Down Syndrome because these pupils are likely to be low achievers.

2.5.2 Social self-perceptions and school placement

Proponents of integration claim that social contact with mainstream peers should provide opportunities for pupils with learning difficulties to learn social skills and acquire age-appropriate behaviour (Martlew & Hodson, 1991; Thompson, Whitney & Smith, 1994). However, pupils with learning difficulties in mainstream settings appear to be deficient in social interaction skills and to have lower social acceptance than their mainstream peers (Bursuck, 1989; Madden & Slavin, 1983; Nabuzoka & Smith, 1993). On a friendship nomination measure, pupils with learning difficulties also had fewer friends than their mainstream peers (Bursuck, 1989).

However, Coleman, Pullis and Minnett (1987) caution that the mean ratings on which research is based tend to obscure the heterogeneity of the research sample. Closer inspection of the data reveals that some pupils with learning difficulties experience positive social interactions and are well-received by their mainstream peers. However,

even when pupils with learning difficulties are rated as low in social status, they may not be aware of their lower social acceptance. Coleman and Minnett (1992) found that pupils with learning difficulties had a higher social self-concept than pupils without learning difficulties with whom they were matched for social status, age, race, gender and ethnicity.

Unfortunately, research on the social competence and acceptance of pupils with learning difficulties has tended to focus on their relationships with pupils without learning difficulties. Chappell (1994) argues that this focus is due to the influence of Normalisation which created the assumption that relationships with pupils without learning difficulties is preferable and more valuable than relationships with pupils with learning difficulties. Chappell (1994) argues that the principles of Normalisation condemn grouping people with difficulties together on the assumption that this reinforces their segregation and stigmatised identities. However, researchers can not assume that relationships with pupils with learning difficulties are less rewarding than relationships with mainstream peers. Friendships between pupils with learning difficulties are, for example, expected to be based on a number of important shared experiences. Therefore, when assessing the literature on social self, readers must not assume that pupils with Down Syndrome will consider themselves socially unaccepted, inept and/or unfulfilled, if they do not have friends without learning difficulties. It is likely that pupils with Down Syndrome who believe themselves to have a satisfactory number of friendships of a satisfactory quality will have high social self-perceptions, regardless of whether their friends have or do not have learning difficulties.

An additional area of research that is important to consider when looking at the social acceptance of pupils with learning difficulties is bullying. Research suggests that pupils with learning difficulties may be at greater risk of being bullied then their mainstream peers. A number of studies have found that significantly more (about two-thirds of) pupils with learning difficulties in mainstream school report being bullied compared with (about one-quarter of) pupils without learning difficulties (Martlew & Hodson, 1991; Nabuzoka & Smith, 1993; Whitney, Smith & Thompson, 1994).

Lewis (1995) compared the perceptions of pupils' experiences of mainstream and special schools. Nearly two-thirds of pupils with learning difficulties recalled playtime as an aspect of their mainstream school they disliked, and associated this with verbal or physical aggression from other pupils. By contrast, only one-quarter of these pupils mentioned playtime at special school as a source of anxiety and difficulties with other pupils. Although bullying is still a problem for a substantial minority of pupils at special school, at mainstream school the risk of bullying may be greater. Although none of the above studies associated bullying and pupils' self-perceptions, being victimised at school is likely to have an impact on self-perceptions. Depending on the content of the bullying, the pupil may feel academically, physically and/or socially ineffectual.

2.5.3 Social self-perceptions and age

With the exception of bullying, there has been little research on the effects of age and/or gender on the social acceptance of pupils with learning difficulties. Research by Martlew and Hodson (1991) suggested that although bullying appears to decline between primary and secondary school, it may become more difficult socially for pupils with learning difficulties as they grow older. These researchers found a significant difference between mainstream pupils and pupils with learning difficulties only for the older age group (9 to 11 years), with pupils with learning difficulties reporting more teasing, and having fewer friends in and outside of school. No significant differences were found between the two younger groups (aged 7 to 9) on the amount teasing and number of friends. Whitney et al. (1994) also found a greater difference between the level of bullying reported by older pupils (11 to 15 years) with learning difficulties and their mainstream peers, in comparison with the smaller difference between the levels reported by younger groups (6 to 11 years). Perhaps this is because with age the differences between the social skills of pupils with and without learning difficulties become more apparent.

2.5.4 Social self-perceptions and gender

Boys with learning difficulties appear to be more rejected than their male counterparts with average and low achievement. By contrast girls with learning difficulties are similar to girls with low achievement in their rejection level, which is higher than the rejection level of pupils with average achievement (Bursuck, 1989; LaGreca & Stone, 1990). These findings suggest that academic achievement may be an important factor in peer rejection for girls with learning difficulties, but not for boys. Although these findings suggest that boys and girls with learning difficulties face different barriers to being accepted by mainstream peers, no differences were revealed in the level of rejection experienced by boys and girls with learning difficulties.

Literature on pupils without learning difficulties provides an insight into gender differences in the level of bullying experienced by female and male pupils. Mooney, Creeser & Blatchford (1991) found that significantly more boys than girls reported being victims of bullying and being involved in fighting at school, although girls acted as perpetrators about as much as boys. If pupils with Down Syndrome experience similar gender differences in bullying, boys may be more at risk of lower self-perceptions.

2.6 Significant others

The views of others may be especially important because the perceptions that significant others (such as parents, siblings and teachers) hold about a person are believed to be incorporated into a person's self-perceptions (e.g., Cooley, 1902; Mead, 1934). Therefore being accepted by parents, siblings and teachers and being seen as competent is likely have implications for pupils' self-perceptions of their competence and acceptance.

As this research did not focus on the influence of significant others, the following section is not aimed to provide a comprehensive review but to provide a brief insight into the potential impact of three groups of significant others on the self-perceptions of pupils with Down Syndrome.

2.6.1 At school: teachers

Teachers are believed to play a role in the acquisition of a pupils' self-perceptions (e.g., Crocker & Cheeseman, 1988). The concept of the self-fulfilling prophecy (Rosenthal & Jacobson, 1968) has often been applied to the teacher-pupil relationship. According to the self-fulfilling prophecy, teachers' expectations of their pupils are converted into pupils' self-expectations, which in turn affect the pupils' performance. Rosenberg (1990), for example, commented that as pupils attribute great wisdom to their teachers, if they believe their teacher expects them to fail, they are likely to expect themselves to fail.

Teachers can communicate their expectations in various ways (Eder, 1983; Marshall & Weintein, 1984) by, for example, the quality of the teacher-pupil relationship, the structural organisation of the classroom, feedback and evaluation practices, grouping practices, student autonomy and choice. Therefore, pupils have numerous sources of information available on which to base their beliefs about their teachers' expectations.

However, the occurrence of the self-fulfilling prophecy has been questioned on the basis on subsequent research and reviews revealing mixed results and varied conclusions (e.g., Rubovits & Maehr, 1971). Therefore, if the self-fulfilling prophecy does occur, it may only do so under a restricted set of circumstances.

Research suggests that teachers may hold negative perceptions of pupils with learning difficulties in mainstream schools. In comparison with perceptions of higher-achieving children, teachers perceive pupils with learning difficulties as less motivated, less task-oriented, lower on general intelligence and lower on academic performance (Coleman & Minnett, 1992), as exhibiting more negative behaviours and less pro-social behaviours (Bursuck, 1989), and as having more attention problems (LaGreca & Stone, 1990). These negative teacher perceptions suggest that pupils with Down Syndrome may be at risk of negative self-perceptions.

2.6.2 At home: parents

Significant others at home, namely, parents and siblings, are also believed to affect self-perceptions. A number of researchers emphasise the important contribution of parental regard to their child's self-image (Burns, 1982; Coopersmith, 1967; Harter, 1988; Rosenberg, 1979). This is because the relationship children have with their family furnishes them with a decisive basis for thinking well or poorly of themselves (Osborne, 1996), and provides them with expectations about success in school work and about the reactions of others to themselves (Burns. 1982). According to the Theory of Attachment (Ainsworth, 1990; Bowlby, 1969/1988), children who have a supportive relationship with their parents are likely to develop an internal representation of the self as worthy of love, respect and care. By contrast children who have insecure or inconsistent attachment relationships with their parents are likely to develop an internal model of the self as not worthy of love. Bowlby's model has received support from research with children without learning difficulties (e.g., Cassidy, 1988; Verschueren, Marcoen & Schoefs, 1996). Research has also supported the hypothesised effect of attachment relationships on children's subsequent peer interactions. Children with secure attachment relationships are likely to approach others with positive expectations, while those with insecure attachment relationships are likely to approach others expecting them to be insensitive or rejecting (Howes, Matheson & Hamilton, 1994).

Children's self-worth and their perceptions of maternal and paternal acceptance were significantly correlated for children with learning difficulties taught in self-contained classes and resource rooms (Morvitz & Motta, 1992). No significant correlation was found for pupils without learning difficulties. Furthermore, children's reports of maternal and paternal acceptance were the only significant predictors of self-worth for children with learning difficulties. By contrast, none of the variables tested significantly predicted the self-esteem of pupils in regular classes. Morvitz & Motta (1992) suggested that compared with pupils without learning difficulties, pupils with learning difficulties may be more reliant on, and more sensitive to, parental acceptance as they may not be able to derive self-worth from academic achievement. By contrast, the greater likelihood of

successful experiences for pupils without learning difficulties provides these pupils with areas on which to derive their self-esteem.

However, there are two problems with Morvitz and Motta's (1992) interpretations of their findings: first, because the data was correlational it is equally plausible that in comparison with pupils without learning difficulties, the self-perceptions of pupils with learning difficulties may have more effect on how they assess parental acceptance. Second, the sample of pupils with learning difficulties had more male then female pupils. Therefore, the differential reliance on parental acceptance demonstrated by the two groups may be due to gender effects, instead of, or in addition to, learning difficulties.

If correct, the greater reliance on parental acceptance may have implications for the self-perceptions of pupils with Down Syndrome because their parental-child attachment relationship is believed to be at risk. Gath (1992) commented that most, if not all, parents are likely to be very distressed on being told that their child is disabled. When studying the reactions of different parents to the birth of their child with Down Syndrome, Shepperdson (1988) found the reactions to be more often negative (35 per cent) or ambivalent (41 per cent), rather then positive (24 per cent). Gath (1992) cited her 1990 study to support the suggestion that parental grief may persist for many years. In this study parents, who were interviewed approximately 14 years after their child's birth, still recalled in tears the impact of the news that their child had Down Syndrome.

Parents may have difficulties relating to a child with learning difficulties. In their review, Shulman, Margalit, Gardish and Stuchiner (1990) found that mothers of children with learning difficulties reported higher levels of stress, lower sense of maternal competence and higher levels of depression. Fathers also reported similar levels of stress, depression and low self-worth. If the suggested stress of bringing up a child with learning difficulties affects the development of a bond between parents and their child, the self-perceptions of pupils with Down Syndrome may be affected.

Although the above research suggests parents' initial reactions to having a child with Down Syndrome tend to be ambivalent or negative, parents' reactions may became

more positive as their child grows older. When the children with Down Syndrome in Shepperdson's (1988) study reached their mid-teens the reactions of the same parents (minus a small dropout) were rated as largely positive (68 per cent), rather then ambivalent (19 per cent) or negative (23 per cent). Just over half these parents felt that caring for their child became easier over the years for a number of reasons, such as, becoming accustomed to the task of caring, and teenagers becoming more independent and easier to manage. Because the majority of parents perceived their care-taking role as easing over time, they may perceive their child more positively with age, and this may lead to an increase in the self-perceptions of pupils with Down Syndrome with age.

However, as children with Down Syndrome grow older, problems with autonomy and independence may arise. According to Greenhalgh (1994) autonomy is important, while too much dependence is emotionally depleting. Greenhalgh (1994) argued that parents and teachers must support dependency to the extent that it helps a child to feel safe and accepted, but not so much that the child is hindered from moving towards independence. Children are likely to perceive themselves more positively if they feel they are becoming more self-sufficient with age, and they feel their parents regard them as capable enough to be allowed increasing freedom. With age, adolescents without learning difficulties reduce the dependency on their parents to fulfil their social needs (Buhrmester, 1992). However, adolescents with Down Syndrome may be hindered in developing independence if their parents are, for example, too protective and restrictive.

Finally, attachments and self-perceptions are at risk for all children when parents separate or divorce. Negative life events and disturbances in childhood, such as parental separation, have been associated with low self-esteem (Beardsall & Dunn, 1992). Aro and Palosarri (1992) found that 14 to 16 year olds whose parents had divorced reported more distress, had a lower self-esteem and poorer school performance compared with intact families, and this finding was especially marked for girls. Marital conflict may also be a risk feature for the development of aggressive behaviour (Cowan, Cohn, Cowan & Pearson, 1996). However, not all children are

harmed by divorce; some are resilient, and some experience initial difficulties but then make substantial adjustment and recovery (Chase-Lansdale, Cherlin & Kiernan, 1995). In summary the self-perceptions of pupils, especially female pupils, may be lowered by parental separation.

The impact of parental separation may be particularly traumatic for children with learning difficulties because children with learning difficulties may not understand the reasons given to them to explain their parents' divorce. Alternatively, if parents do not expect their child to understand, they may not offer an explanation. Gath (1993) argued that children with learning difficulties are often similar to younger children in assuming, in the absence of alternative explanations, that the separation must be their fault. This highlights the importance of attempting to offer explanations to children at their level of understanding.

In addition to parent-child attachments, research also supports the importance of a close relationship between parents and their child's school. Deci, Hodges, Pierson and Tomassone (1992) found that for pupils with learning difficulties, support for autonomy in the home and classroom, along with involvement by significant adults (like parents) in the pupils and their schoolwork, promoted greater internal motivation, achievement and adjustment at school. Therefore, the relationship between the parents and schools of pupils with Down Syndrome may also affect their self-perceptions.

2.6.3 At home: siblings

A child with learning difficulties may also be vulnerable to problematic sibling relationships. This has implications for self-perceptions, because for children, the quality of their siblings behaviour towards them has been found to relate to their later sense of their own competence and attractiveness (Dunn, Slomkowski & Beardsall, 1994).

McHale and Harris (1992) comment that because of the special care children with learning difficulties require, parents may devote more time, attention and energy to them in comparison with their children without learning difficulties (McHale and Harris, 1992). Differential treatment may have implications for self-perceptions because

children are believed to be aware of, and to respond to, differential treatment (Dunn & Plomin, 1991). Furthermore, differential treatment of siblings without learning difficulties has been found to lead to rivalry, conflict and hostility between siblings (Boer, Goedhart & Treffers, 1992). Dunn, Stocker and Plomin (1990) also reported an association between differential maternal treatment and internalising and externalising problems in children. Because internalising behaviours have been linked with being perceived as a 'victim' of bullying (Nabuzoka & Smith, 1993), and externalising is negatively predictive of self-esteem (Sletta, Valas, Skaalvik & Sobstad, 1996), a poor sibling relationship is expected to affect pupil's self-perceptions.

It is difficult to draw any implications from this research for pupils with Down Syndrome. Parents may, for example, treat children with Down Syndrome according to their mental age rather then their chronological age. Therefore, children with Down Syndrome may feel less competent than their siblings. Sibling relationships may be affected by, for example, resentment due to differential parental treatment. Therefore, children with Down Syndrome may feel different from their siblings. Further research is required before any conclusions can be drawn about the affects of Down Syndrome on sibling relationships.

2.7 Implications for pupils with Down Syndrome

From the above research it is possible to state a number of hypotheses about the self-perceptions of pupils with Down Syndrome.

- Their self-perceptions of academic and physical competence are expected to be higher in special schools than in mainstream schools because of the competence of the peers they will use for comparison. These self-perceptions are expected to decline with age because older pupils will have experienced more failure and with age, the gap between their ability and that of their peers will increase. These self-perceptions are expected to be higher in male then in female pupils because competence is stereotyped as a male domain. However, research on academic attainment suggests that female (rather than male) pupils and pupils with Down

Syndrome in mainstream schools (rather than pupils in special schools) may have higher academic self-perceptions.

- Their self-perceptions for social acceptance are likely to follow the same pattern as competence self-perceptions with regards to school placement, and age. However, girls are expected to have higher social self-perceptions because, for example, boys experience more bullying.

- Pupils with secure attachment relationships with significant others are expected to have higher self-perceptions then pupils with insecure attachments.

CHAPTER 3

THE STRENGTHS AND WEAKNESSES OF PUPILS WITH DOWN SYNDROME: IMPLICATIONS FOR ASSESSMENT INSTRUMENTS AND SELF-PERCEPTIONS

3.1 Introduction

In the absence of relevant research, it was necessary in chapter 2 to discuss the possible implications that research on pupils without Down Syndrome may have for the self-perceptions of pupils with Down Syndrome. However, there is a considerable body of research on people with Down Syndrome which does provide direct implications for this study.

Research into whether Down Syndrome presents an aetiologically-specific profile of development has implications for the selection of an assessment technique and for predicting the self-perceptions of pupils with Down Syndrome. The developmental strengths and weaknesses of pupils with Down Syndrome need to be taken into consideration when selecting assessment instruments to measure their self-perceptions. Furthermore, if pupils with Down Syndrome demonstrate a different developmental profile from that of pupils without learning difficulties, utilising instruments devised for, and standardised on, pupils without learning difficulties may produce invalid or unreliable results. The developmental strengths and weaknesses should also provide an insight into the areas in which pupils with Down Syndrome are likely to perceive themselves as competent. This chapter will focus on the developmental areas that have implications for the selection of assessment instruments or for self-perceptions. The areas covered are cognitive and linguistic development, attention skills, information processing, memory, socio-emotional development and health.

Before discussing these areas it is necessary to provide some general information about Down Syndrome. There are three sub-types of Down Syndrome, all of which are characterised by extra copies of the chromosome 21, either in each body cell (sub-types trisomy 21 and translocations) or only within certain types of cell (sub-type mosacism).

Trisomy 21 accounts for approximately 95% of the cases of Down Syndrome. The presence of the additional copies of chromosome 21 appears to exert a profound impact upon the development, biology and psychology of Down Syndrome (Gibson, 1978; Nadel, 1988).

3.2 Cognitive development

Children with Down Syndrome show a unique slowing and plateau-like trajectory in their intellectual and sensorimotor development (Dunst 1988/1990; Stratford & Gunn, 1996). Gibson (1966/1978) characterised the development of children with Down Syndrome as involving several periods of advance, along with plateaus of little or no advance. Gibson (1978) described the longest and most prominent plateau as a "developmental wall" which occurs during middle childhood (i.e., between 8 and 11 years). However, not all children with Down Syndrome appear to plateau in middle childhood, and children with Down Syndrome between the ages of 7 and 11 demonstrate considerable variation in their functioning (Dykens, Hodapp & Evans, 1994). In spite of this within-group variation, the idea of plateau-like development has been applied to describe the intellectual, social, adaptive and linguistic development of children with Down Syndrome (Dykens, Hodapp & Evans, 1994).

The implications of this developmental literature are threefold. First, the sensorimotor development of children with Down Syndrome appears to progress through the same stages as children without learning difficulties and in the expected order (Dunst, 1988/1990). Therefore the same instruments as those devised for, and standardised on, children without learning difficulties should be applicable for pupils with Down Syndrome. However, since children with Down Syndrome develop at a slower pace than their same-aged peers without learning difficulties, assessment instruments designed for, and standardised on, younger children without learning difficulties may be appropriate. Second, there must be some flexibility in the research process to allow for the variation in developmental levels among same-aged children with Down Syndrome. This flexibility may include changes in, for example, the wording of questions and

instructions, speed of administration, and number of repetitions. Finally, the decrease in rate of intellectual and sensorimotor development over time implies that the gap between children and their peers without learning difficulties will increase with age. Therefore, the self-perceptions of pupils with Down Syndrome may decline with age as it becomes more apparent that they are less competent than their peers without learning difficulties. Children with Down Syndrome may also have their lowest self-perceptions during middle childhood because of the hypothesized "developmental wall" that occurs during this period.

3.3 Language development

Children with Down Syndrome experience a number of specific difficulties with language comprehension and production (Fowler, 1990; Fowler, Gelman & Gleitman, 1994).These difficulties appear to be greater then those experienced by people with learning difficulties due to other causes (Sabsay & Kernan, 1993).

The language levels of children with Down Syndrome can show considerable variability, ranging from mutism to linguistic maturity, However, their language development appears to be characterised by four main asynchronies, which are either absent, or not so extreme for other groups of children. First, areas of non-verbal development are more proficient than language development (Fowler, 1990). Second, language comprehension is more proficient than language production (Fowler, 1990; Mervis, 1990). Third, social aspects of language (e.g., conversational relevance and turn-taking skills) are more proficient than non-social aspects of language (e.g., pragmatics, grammatical and relational aspects; Leifer & Lewis, 1984). Finally, lexical development is more proficient than syntactical development (Fowler, 1990; Miller, 1992; Rondal; 1988).

In terms of assessment techniques, it is important to concentrate on utilising the strengths of children with Down Syndrome whilst minimising any reliance on their weaknesses. The level of language comprehension required should be reduced by, for example, using demonstration, symbols and pictures, reducing the syntactic and

grammatical complexity of the speech used to address pupils, using simply structured sentences and repeating or rephrasing instructions and questions if pupils fail to comprehend the researcher. Researchers should also minimise the amount of productive language required by requesting a non-verbal response, for example, pointing or posting.

A number of researchers have attempted to elucidate what causes the language profile associated with Down Syndrome. Three of the reasons suggested by Miller (1988) have implications for assessment and/or self-perceptions. First, Down Syndrome is often associated with an increased frequency of hearing loss relative to individuals without learning difficulties and those with learning difficulties due to other causes (e.g., Marcell & Cohen, 1992). As well as interfering with language development, the chance that a child may have poor hearing must be considered when administering the assessment instruments. In addition to speaking loudly and clearly, researchers could consult teachers about the proficiency of a pupil's hearing. Furthermore, if a teacher knows or suspects a child has a hearing deficit, they can be asked about the strategies employed to maximise communication with the child. However, it is important not to assume the level of a child's hearing on the basis of one teacher's assessment. For a number of reasons, teachers may not be aware of a child's hearing difficulty and/or the extent of his/her difficulty.

Second, Down Syndrome is often associated with deficits in motor co-ordination and timing. These deficits may adversely affect the speech production system including respiration, phonation, articulation, palate, tongue, lips and jaw (Rosin, Swift & Bless, 1987). Therefore, children's responses should be manual to avoid any difficulties they may have with speech production, and also to avoid researchers misinterpreting verbal responses. Children with Down Syndrome who experience problems with speech production may also be vulnerable to lower self-perception, especially within the social domain. Such children may be ridiculed by peers and/or be misunderstood by peers and adults.

The final causal factors are environmental factors need to be considered, such as, decreased expectations of language competence, and inappropriate maternal interaction style by parents toward children with Down Syndrome (e.g., Cardoso-Martins & Mervis, 1985; Mervis, 1990). As mentioned in the previous chapter, the views of significant others are argued to be incorporated into a person's self-perceptions (e.g., Cooley, 1902; Mead, 1934).

3.4 Attention

Children with Down Syndrome appear to have difficulties with two aspects of attention, namely, shifting attention and joint attention. Literature on shifting attention and joint attention suggest an aetiologically specific deficit for children with Down Syndrome. In a play situation with their mothers, infants with Down Syndrome spent more time looking at their mothers, and switched their attention less between toys than did pre-term infants matched for mental age and motor age (Landry & Chapieski, 1990). Ruskin, Mundy, Kasari and Sigman (1994) also found support for the longer gazing at adults, rather than toys. Furthermore, infants with Down Syndrome, in comparison with pre-term infants demonstrated a greater difficulty in co-ordinating their attention with their mothers and were less successful in utilising their mothers' support to increase their attention and examination of toys (Landry & Chapieski, 1990).

A preference for faces is expected to interfere with assessment procedures. If this preference is still evident for pupils between 8 and 16 years (i.e., the age range of this study's sample) attempts should be made to divert the pupils' attention away from the researcher's face towards the assessment instrument. A potential solution could be to enhance the attractiveness of the instrument by, for example, using colourful, noisy and movable stimuli.

Research on attention suggests that for any group of children with learning difficulties, it is necessary to minimise potentially distracting auditory and visual stimuli, to heighten the attractiveness of the assessment task in order to sustain attention (by, for example, colour, movement and variation), and to avoid forcing the child to shift attention or

engage in joint attention. Landry and Chapieski (1989) also suggest that the attention

skills in infants with Down Syndrome can be enhanced by specific non-verbal, attention-

directing techniques (attention-directing gestures, for example pointing to, showing and

tapping a toy) and two verbal attention-directing techniques of imperatives (directives to

do some activity for example, come, show, throw, give, put), and questions (inquiry into

whether the child wants to do some activity). However, these suggestions are based on

research with infants interacting with their mothers and toys. Therefore, it is difficult to

predict the benefit of these techniques for pupils with Down Syndrome with a

researcher. In the assessment of self-perceptions, pupils will face an adult less familiar

than their mother, and an assessment instrument which is likely to be less stimulating

than a collection of toys.

3.5 Information processing

Two areas of information processing research are relevant to assessment procedures.

These are, research on sequential and simultaneous processing, and research on visual

and auditory processing.

  Some researchers argue that sequential and simultaneous processing are equally

impaired in children with Down Syndrome (e.g., Hodapp, Leckman, Dykens, Sparrow,

Zelinsky & Ort, 1992; Pueschel, 1988; Snart, O'Grady, & Das, 1982). Others suggest a

greater weakness for sequential processing amongst children with Down Syndrome

(Kernan, 1990; Molina & Perez, 1993; Snart et al., 1982).

  The advantage of visually presented over verbally presented information is supported

by research concerning visual and auditory processing. Research on imitation of

sequences suggests that young adults with Down Syndrome benefit from visually

presented information, and may be hindered by using only verbal information or

simultaneously presented verbal and visual information (Kernan, 1990). People with

Down Syndrome appear to perform relatively well on tasks involving visual-motor

integration (visual-reception, association and manual expression), which is consistent

with their relative superiority for motoric over linguistic symbolisation (e.g., Beeghley &

Cicchetti, 1987). By contrast persons with Down Syndrome appear to demonstrate more problems with auditory processing than do persons with learning difficulties due to other causes (Bilowsky & Share, 1965; Rohr & Burr, 1978).

In terms of assessment, instruments should focus on the apparent strengths of children with Down Syndrome (by visually presenting material and requiring a manual response) and minimise their weaknesses (by avoiding reliance on auditory reception, association and memory).

3.6 Memory

For people with Down Syndrome the auditory sequential memory appears to be more deficient than their visual memory, and more deficient than the auditory memory of people without learning difficulties and children with learning difficulties due to other causes (Rohr & Burr, 1978; Snart et al. 1982; Varnhagen, Das, Varnhagen, 1987). Therefore, children with Down Syndrome are expected to be slower identifying, processing, and responding to incoming auditory items than children without learning difficulties.

In terms of assessment procedures, the research on information processing and memory, emphasises the importance of avoiding any dependence on the vocal-auditory channel due to the deficits that persons with Down Syndrome exhibit with auditory access, storage, processing, and retrieval, and with language comprehension and production. Assessment procedures must attempt to limit the reliance on auditory presentation of instructions and questions. Alternatively, researchers could utilise symbols, pictures or demonstration. However, when auditory presentation of information is unavoidable, measures should be taken to assess whether the child has comprehended the information.

3.7 Individual differences

Although some research suggests an aetiologically-specific profile unique to Down Syndrome, individuals with Down Syndrome are not identical. It is important to

emphasise that people with Down Syndrome form a heterogeneous group with much individual variation in attainment (Stratford & Gunn, 1996). Researchers have begun to recognise the considerable variability in the level of functioning within groups of persons with Down Syndrome in the domains of, for example, IQ (Zigler & Hodapp, 1991), sensorimotor development (Dunst, 1990), language abilities (Fowler, 1990), and attention (Green, Dennis & Bennets, 1989).

In terms of assessment techniques this within-group variability suggests the need for enough flexibility in the method to cater for differences in ability.

3.8 Socio-emotional development

There are two important areas to consider in the socio-emotional development of children with Down Syndrome: first, is their experience of test situations, and second, is the distinctive facial characteristics and stereotype associated with Down syndrome.

Although children with Down Syndrome may have spent a considerable time being tested, they may be unused to being asked for their views and opinions. Therefore, the researcher must be aware that asking children with Down Syndrome about their views may be a unique and strange experience for them. The researcher must be flexible with his/her style of questioning so that questions can be posed, with care, in alternative formats if necessary and pupils must be given sufficient time in which to respond.

Research on cognitive testing provides an insight into how pupils with Down Syndrome respond to formal test situations. Wishart and Duffy (1990) found that in a formal test situation children with Down Syndrome showed a number of avoidance strategies, such as, diversionary and delaying tactics, noncommittal responses, misuse of social skills and under-use of existing skills. These authors felt that the test scores of their samples had been underestimated because of a deficiency in motivation during formal testing. This deficiency was evidenced in frequent examples of inadequate test engagement, including, refusal to attend, throwing material away, and off-task behaviours. These findings highlight the importance of using assessment instruments that will motivate and help children with Down Syndrome to maintain their attention

towards tasks. Assessment instruments should, for example, be short, contain attractive and interesting stimuli to look at, and require responses that involve children (e.g., pointing or posting responses). Furthermore, techniques should be included to reduce the formality of the test situation. Researchers should, for example, explain to pupils that he/she is not a teacher, that the assessment is not a test, that their are no wrong answers, and talk to pupils about other issues likely to be of interest to them before administering the assessment instrument. In comparison with cognitive assessments instruments, it should be easier to select attractive, attention sustaining assessment instruments to measure self-perceptions.

Many researchers have written about the low expectations held about, and the personality stereotype associated with, Down Syndrome (e.g., Cahill & Glidden, 1996; Lippman & Brunger, 1991; Pueschel, Bernier & Pezzullo, 1991). The low expectations include the tendency to identify the possession of Down Syndrome with, for example, severe mental handicap (Booth, 1981), intellectual inferiority (Borthwick, 1996), and the belief that the capacities and level of achievement of children with Down Syndrome, unlike other children, are unaffected by the environment (Rynders & Horrobin, 1980).

These low expectations have implications for the self-perceptions of pupils with Down Syndrome. If little is expected of a child, his/her self-perceptions may be high because he/she is likely to always fulfil others' expectations and is unlikely to fail. On the basis of the self-fulfilling prophecy, Wishart & Johnston (1990) see it as no surprise that the fewer demands being made of children with Down Syndrome means they are perceived as easy to look after. However, self-perceptions may be adversely affected if children with Down Syndrome underachieve because significant others make fewer demands, and expect less, of them. If low expectations result in children with Down Syndrome not reaching their potential, they will have few achievement experiences with which to raise their self-perceptions.

Due to the Down Syndrome stereotype, persons with Down Syndrome are popularly conceived as having an easy temperament and agreeable personality. This stereotype appears to persist in spite of recent research suggesting that the stereotype is probably

incorrect and that children with Down Syndrome have the same range of personality and behavioural attributes as other children (Pueschel et al., 1991; Wishart & Johnston, 1990). According to Thomson, Ward and Wishart (1990) this "happy, affectionate, loves music and none-too-bright" stereotype is associated with Down Syndrome because of a lack of awareness in the general public of the wide variation in ability levels and personality attributes associated with the Syndrome.

This general lack of awareness may be due to the stereotyped presentation of Down Syndrome given in textbooks and passed on by professionals. In human and medical genetics texts, for example, Lippman and Brunger (1991) found a number of features that perpetuated the prototype of Down Syndrome as child-like, abnormal, and uniform in physical appearance and characteristics.

The distinctive physical features of Down Syndrome also render the stereotype easy to apply. According to Richardson, Koller and Katz (1985), literature and research persistently shows that people's appearance influences both their relationships with others and their own self-perceptions. As such, atypical appearance places a person at a disadvantage because he/she may elicit negative reactions from others, for example, fear, emotional arousal, and different behaviour from that directed at people with typical appearance. Therefore the physical characteristics associated with Down Syndrome may impact on the views of, and interactions with, others.

Due to the purported centrality of facial features, children with Down Syndrome may be less socially accepted because of the physical characteristics associated with the syndrome. The oral pathology that characterises Down Syndrome, for example, open-mouth posture and protruding tongue, may cause drooling and articulation problems (Limbrock, Fisher-Brandies & Avalle, 1991). Tongue protrusion is a physical characteristic that parents and professionals frequently point to as a major source of physical dysfunction and rejection (Pueschel, Monteiro & Erickson, 1986). Limbrock et al. (1991) stated that drooling may cause children with Down Syndrome problems in social acceptability. Strauss, Feuerstein, Mintzker, Rand and Wexler (1989) found a lack of acceptance in their research. These researchers asked pupils without learning

difficulties to rate photographs of children with Down Syndrome. Children with Down Syndrome were seen as less attractive, intelligent, good hearted and socially appealing than control children without Down Syndrome. Strauss et al. (1989) explain this finding as reflecting the notice people take of deviant facial characteristics and the stigma attached to different bodily signs.

Alternatively, the stereotype may raise the social self-perceptions of pupils with Down Syndrome because it is predominately positive. People may, for example, perceive unfamiliar pupils with Down Syndrome as sociable and happy. Similarly, the positive stereotype associated with Down Syndrome may motivate people to interact with unfamiliar pupils with Down Syndrome. If others expect pupils with Down Syndrome to be happy and agreeable and treat them as such, pupils with Down Syndrome may have positive social self-perceptions.

3.9 Health

Finally, the health of pupils with Down Syndrome may also have an impact on their school-related self-perceptions. Fifty per cent of all people with Down Syndrome are born with heart defects as against 1 per cent of the general population (Stratford, 1994). Heart defects are likely to have implications for self-perceptions if they result in absences from school and to a child not being able to participate in some physical activities and/or games. Parents of children with heart defects may also be more restrictive and protective of their child.

Sixty-seven per cent of children with Down Syndrome have defective vision and "approximately the same amount" have hearing defects (Stratford, 1994). Unfortunately Stratford (1994) did not give the percentage of pupils with hearing defects. If these sensory defects are not compensated for, with, for example, glasses and hearing aids, they are likely to impair pupils' academic work and their communication with others. However, wearing compensatory devices may also lead to teasing and social rejection. Therefore, the self-perceptions of pupils with Down Syndrome who have sensory deficits may be affected regardless of whether compensatory devices are used.

3.10 Summary and implications

Below is a brief summary of the implications of the above mentioned strengths and weaknesses of children with Down Syndrome for selecting assessment instruments, and for predicting self-perceptions.

- Findings on cognitive development suggest the utility of instruments devised for younger children without learning difficulties and also suggest that the self-perceptions of pupils with Down Syndrome may decline with age.

- Findings on language development suggest that instruments should require minimal language comprehension and production skills. Because there is a possibility of communication difficulties, the social self-perceptions of pupils with Down Syndrome may be low.

- Findings on attention suggest that instruments should minimise distracting stimulus and avoid forcing pupils to shift attention or engage in joint attention.

- Findings on information processing and memory suggest that material should be presented visually and responded to manually.

- Findings on individual differences suggest the necessity of a flexible research procedure.

- Findings on socio-emotional development suggest that care should be taken to reduce the formality of researcher-pupil interaction.

- Findings on expectations associated with Down Syndrome suggest low academic self-perceptions for pupils with Down Syndrome. Findings on the stereotype associated with Down Syndrome suggest high social self-perceptions for pupils with Down Syndrome. However, findings on the physical features associated with Down Syndrome suggest low social self-perceptions for pupils with Down Syndrome.

- Findings on health suggest that heart problems may lower physical, and therefore, social self-perceptions for pupils with Down Syndrome. Sensory defects may lower the social and academic self-perceptions of pupils with Down Syndrome.

CHAPTER 4

SELECTION OF METHODS: STUDY 1

4.1 Introduction

In light of the specific difficulties discussed in the previous chapter, the methods
currently being utilised to research self-perceptions were examined with the intention of
finding those methods likely to be appropriate for pupils with Down Syndrome. In
addition to considering the specific difficulties encountered by pupils with Down
Syndrome, ethical and methodological issues were also taken into account. These two
sets of considerations limited the applicability of many of the approaches and
instruments adopted to measure the self-perceptions of children without learning
difficulties.

In this chapter the methodological underpinnings of the quantitative approach will be
discussed. This will be followed by a discussion of the ethical and methodological
considerations of carrying out research with pupils with Down Syndrome. Thirdly, the
selection process, which led to the choice of two instruments to measure self-
perceptions, will be discussed.

4.2 Quantitative techniques

Quantitative research is underpinned by a number of ontological, epistemological and
methodological issues (e.g., Blumer, 1984; Bryman, 1988; Denzin & Lincoln, 1994).
Below is a brief summary of the issues, argued by Bryman (1988) to be most commonly
identified with the quantitative position. Although quantitative research is broader than
the following issues, the summary provides an insight into the most commonly
recognised underpinnings of quantitative research. In relation to ontological issues,
quantitative researchers adopt a realist position, whereby objects and reality are argued
to have an independent, objective existence, that are external to the observer. In
relation to epistemological issues, quantitative researchers, firstly, believe that it is

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well-tried statistical techniques (Burns, 1979). The limitations of quantitative approaches are discussed in Chapter 6.

4.3 Considerations when assessing pupils with Down Syndrome

Underlying considerations when carrying out research with children who have Down Syndrome are four fold. Each relates to specific challenges that shaped the selection of suitable assessment instruments. The first consideration relates to the specific difficulties encountered by pupils with Down Syndrome and is covered in the previous chapter. The considerations discussed here relate to the challenge of doing research: with a comparatively powerless group; and with children; and with children with a degree of learning difficulty.

4.3.1 Ethical issues

Ethical issues are especially important when the research sample consists of groups, such as pupils with Down Syndrome, who are less 'powerful' than the researcher. Recently, researchers have attempted to shift the balance of power in the research process from the researcher to the researched, and also to encourage the researcher to explore his/her own position in relation to the research topic. These approaches have been applied across a range of research contexts including work with people with disabilities (Fulcher, 1995).

The qualitative approach is often associated with reducing the power imbalance between researchers and participants with being opposed to the idea of a value free, objective science (Bryman, 1988). This commitment to equality is grounded in the principles underlining the qualitative approach, such as, researcher's avoiding imposing their conceptual framework on participants, and aiming to study phenomena in their natural setting with minimal interference (Bryman, 1988). However, qualitative researchers sometimes face similar criticisms to those directed at quantitative researchers. This is because qualitative researchers, like quantitative researchers, often control the research process. Some qualitative researchers, for example, decide what to

study and how to study it. According to Denzin & Lincoln (1994), ethnographers have in the past been criticised for claiming illegitimate power over participants, for establishing hierarchical relations with their participants and for exercising a subtle form of control over their participants by getting close to them and uncovering their perspectives Therefore, whether I adopted a quantitative or a qualitative approach, I needed to consider my relationship with the research participants, and to question the power balance of this relationship.

In relation to the rejection of value-free research, qualitative researchers tend to view reality as socially constructed and to carry out intensive self-reflection and introspection during research (Denzin & Lincoln, 1994). According to Denzin and Lincoln (1994), qualitative researchers understand that research is an interactive process shaped by researchers' personal history, gender, social class, race, and ethnicity. Rather than seeking to eliminate values, experiences and commitments, examination of these has become a fundamental part of the research process (May, 1993). I decided to reflect upon my personal experiences during my research, and also to provide readers with sufficient information (Chapter 1) to enable them to consider the potential effect of my subjective experiences on the research.

In this study, the fact that the data were collected in schools is expected to have increased the unequal power distribution between the researcher and pupils with Down Syndrome. When assessed in school, a pupil may perceive the researcher as a 'teacher' and the assessment instruments as 'school tests'. Pupils with Down Syndrome may be especially vulnerable to perceiving assessment instruments as tests because they are likely to have spent a considerable time being examined and assessed. A range of research has revealed the fears, particularly powerlessness and coercion, that children with Special Educational Needs hold about the assessment process (Wade & Moore, 1993; Armstrong, 1995).

Stalker (1998) argues that during the last 10 years people with learning difficulties have increasingly been considered reliable informants who hold valid opinions and have a right to express them. In line with this growing opinion, two new research approaches,

associated with the social model of disability, have been advocated as suitable for work with persons with difficulties. These approaches are 'emancipatory' and 'participatory' research. Although these two research terms are sometimes used interchangeably, researchers have attempted to differentiate between the two approaches (e.g., French & Swain, 1997). According to French & Swain (1997) emancipatory research involves using research processes and research outcomes to liberate people with disabilities. Researchers aim to change society, and to help people with disabilities to gain control over any limiting physical and social barriers. The empowering aspect of participatory research focuses on the research process whereby people with disabilities are provided with opportunities to tell their stories and analyse their situations.

However, fulfilling the aims of emancipatory and participatory research can prove problematic for a number of reasons. The first three of these are practical difficulties. First, emancipatory research aims to involve people with learning difficulties in, for example, formulating issues to research, defining problems, devising the research strategy, data analysis and dissemination (Lloyd, Preston-Shoot, Temple & Wuu, 1996). However, some researchers who advocate the principles of participatory and/or emancipatory research have questioned the extent to which the research process can be directly controlled by people with disabilities (Riddell, Wilkinson & Baron, 1998). There may be some aspects of the research process in which not all participants have the necessary skills and/or knowledge to participate (Stalker, 1998).

The young age of, and the learning difficulties experienced by pupils with Down Syndrome, limited their participation in the research. It is likely that pupils with Down Syndrome would find it difficult to participate in, for example, constructing a research design or analysing data. To give pupils with Down Syndrome more power over the research process I could have, for example, consulted a sample of the more able pupils throughout the research process. Such a consultation would have to take place in person because of the reading and comprehension difficulties experienced by pupils with Down Syndrome. This suggestion was discarded because a number of difficulties were envisaged with trying to bring together a small group of pupils with Down

Syndrome from diverse areas for discussion groups. These difficulties included gaining pupils' and parental consent, arranging and subsidising transport to and from the venue, limits on the researcher's time, and limits on the pupils' time due to their commitments to school, and/or to leisure activities which they may not have wanted disrupted. Furthermore, the sample would have been unrepresentative as it would only have included pupils with competent language skills.

Because the pupils with Down Syndrome in this study were not involved in all stages of the research, the research process was not emancipatory. However, it is unlikely that any research approach will eliminate the unequal power distribution between an adult researcher and pupils with Down syndrome. Instead of abandoning the research because I could not think of how to involve pupils with Down Syndrome in all aspects of the research process, I decided to concentrate on the areas where pupils could participate. Therefore, I concentrated on devising instruments and designing a method that would enable pupils to communicate their self-perceptions and exercise some control over this phase of the research.

The pupils in this study were consulted and their views were seen as paramount. This emphasis on asking for pupils' views marks a step, albeit a small one, towards recognising the rights of pupils with Down Syndrome to having their views heard. Furthermore, attempts were made to reduce the power inequality between the researcher and pupils by increasing the pupils' control over the research process. These attempts included treating pupils as active participants by asking pupils for their views rather than relying on the perceptions of significant others, allowing pupils to refuse participation at any point throughout the research, allowing pupils to complete the assessment instruments at their own pace and not preventing pupils from talking about unrelated topics during the assessment process or from carrying out non-task-related activities. The researcher disclosed personal information when it was asked for and/or when she felt she could empathise with a pupil on the basis of having had similar experiences. It was also explained to the pupils that the researcher was not a teacher,

that the assessment instrument was not a test, and that there were no right or wrong answers.

Finally, I tried to be reflexive during the research by scrutinising myself, my values, hypotheses, and potential biases (discussed in chapter 1). Where equality between the researcher and participants is not attainable, Oliver (1992) suggested that researchers should at least acknowledge and make explicit any differences between themselves and their participants. Therefore, I wanted to acknowledge that there was a hierarchical relationship between myself and the pupils for a number of reasons, for example, my older age in comparison with the pupils, my more extensive educational and research experiences, and the fact that I did not experience the same learning difficulties as the pupils.

At this point, it is also important to note that gaining consent from people with learning difficulties is regarded as problematic (e.g., Swain, Heyman & Gillman, 1998). Although, researchers can try to increase participants' understanding of the research process by, for example, taking language difficulties into consideration, it is unlikely that pupils with Down Syndrome will know exactly to what they are consenting. Pupils with Down Syndrome may not be aware, for example, that their input will contribute to research presentations and publications. A number of steps were taken to protect pupils' rights and to increase the likelihood of their knowing to what they were consenting. These steps included, explaining the research to pupils in simple terms, stating that it was perfectly all right for them to refuse to participate if they did not wish to, and asking pupils for their consent in private and away from adults in authority (e.g., parents and teachers). It was also hoped that gaining informed consent from parents and teachers on behalf of the pupils would act as a safeguard for the pupils' interests.

The second practical problem with emancipatory and participatory research is that researchers often begin with the false assumption that oppressed groups are internally homogeneous (Hastrup & Elsass, 1990). Achieving advocacy for, for example, adults with learning difficulties will be complicated by the fact that members of this group are likely to be motivated by diverse ideas, interests and to be pursuing various political

strategies. Therefore, what is seen as emancipatory by one participant may not be viewed as such by another. Although pupils with Down Syndrome were seen to be vulnerable to certain difficulties (those noted in chapter 3), flexibility in the research approach and procedures was deemed vital because the pupils were viewed at the outset of the research as heterogeneous. Acknowledging variability of participant's experience is also seen by Goodley (1996) as a move towards empowering people with learning difficulties.

Third, participants with learning difficulties are vulnerable to having their advocacy impeded. A number of researchers have sought to reduce this vulnerability by cautioning researchers about the potential threats that can impede participants' advocacy. Booth and Booth (1996) caution that interviews with participants with poor language can become more like an interrogation with researchers dominating the conversation and participants unlikely to have the language skills to easily defend themselves against unwelcome questions. In line with the principles of accountability and the ethics of representation, Booth and Booth (1996) argues that researchers have a responsibility to make it clear whose voice is speaking, the researcher's or the participant's. Goodley (1996) has cautioned researchers against representing participants as victims by being too sympathetic to participants' injustices and oppression. Such representations are likely to reassert participants' experiences of subordination. Instead Goodley (1996) recommends that researchers link their participants' difficulties with aspects of the disabling environment. These cautions were taken into consideration during the data collection and during the writing up. I felt it was important not to patronise pupils by being overly sympathetic. The aim of the research was to provide pupils with the opportunity to present their own strengths and capabilities, not just their difficulties.

Finally, emancipatory and participatory research is problematic because there is often uncertainty about what is and what is not in the interests of the participants (Atkinson & Hammersley, 1994). Stalker (1998) asks, for example, whether research can and/or does empower people with learning difficulties, how many participants want to be

empowered and whether it is only the researcher who is empowered (e.g., by publications arising from the research). Therefore, before assuming research is empowering, researchers must consider whether, and if so how, each participant benefits and whether each participant wants to be empowered or 'given a voice'.

Researchers who support the concept of emancipatory research (e.g., Oliver, 1992; Zarb, 1992) argue that such research must empower people with disabilities. Oliver (1992), for example, argues that research can be abusive to participants unless it is linked directly into policy-making structures and thereby, directly influences their way of life. However, this attitude excludes research topics that do not directly relate to policy, such as self-perceptions. A number of researchers (e.g., Bury, 1996; Shakespeare, 1996) criticise the privileging of research that confronts and overcomes oppression. Bury (1996) argues that without fundamental descriptive research, basic questions may not be asked and conceptual frameworks may not be developed. This research is not emancipatory in the sense that it does not aim to directly change the lives of pupils with Down Syndrome. However, the research topic is worthy of researching. My interest in and the value I accord to the experiences and perceptions of pupils with Down Syndrome, are demonstrated in the research aim: to understand how pupils' perceive themselves. Interest in the self-perceptions of pupils without learning difficulties is reflected in the numerous studies that have investigated this area. However, research into the self-perceptions of pupils with learning difficulties has not been accorded the same interest. Therefore, my aim was to devise a sound means of assessing the self-perceptions of pupils with learning difficulties, and to begin research into this area by investigating pupils with Down Syndrome.

4.3.2 Methodological issues associated with assessing children

The validity of the responses of pupils with Down Syndrome can be threatened by several well-documented response tendencies. These include a tendency for children to respond in a 'socially desirable' manner, to be acquiescent, to lack clarity about the self, to give a succession of 'don't know' responses or to interpret questions in a literal

manner (Wylie, 1974; Bums, 1984; Lewis, 1992). Responses to self-concept instruments administered by an unfamiliar researcher may be especially vulnerable to the "socially desirable" response tendency (Tice, Butler, Muraven & Stillwell, 1996). Tice et al. (1996) argue that a person's audience or interaction partner influences the likelihood of that person trying to make a positive impression on others. When researchers lack prior knowledge of the participants, they are unable to employ this knowledge to assess the validity of the participants' claims. On the basis of this argument, participants are expected to be more inclined to present themselves positively because the researcher has no other information on which to formulate his/her opinions. Therefore, any instrument must control for, and/or take into consideration the tendency of positively biased self-presentations.

Additionally, in interviews children may give unreliable responses because, for example, they become easily distracted, their priority is to find out about the researcher, repetition of a question or probing for detail leads to amendment of the answer, and receptive or expressive language limitations constrain the children's ability to express what they know or believe (Lewis, 1992; Ceci & Bruck, 1993). These response tendencies were considered when selecting appropriate research instruments. For example, to reduce distraction only short instruments were chosen, and where possible, pupils completed the instruments in quiet settings, probing was avoided, and language limitations were taken into consideration.

4.3.3 Methodological issues associated with participants who have learning difficulties

Attaining reliable and valid responses may be especially difficult when assessing children, like pupils with Down Syndrome, who have learning disabilities. Researchers in this area have suggested guidelines to increase validity and reliability of responses with this group. Suggestions include limited use of open questions, avoidance of yes/no questions, avoidance of questions requiring precise answers, avoidance of examples and probes, flexibility in question wording and question order, and the use of a range of response modes, particularly pictorially-based multiple choice approaches (Sigelman,

Budd, Winer, Schoenrock & Martin, 1982; Lewis, 1995). All these suggestions were taken into consideration when selecting the research instruments.

4.4 Selection of instruments

A literature review revealed four techniques that met most of the above mentioned considerations. These were non-verbal and/or pictorial techniques, construct generation techniques, projective techniques and topological techniques. Further examination of the latter two techniques revealed a number of limitations that led to their rejection as a suitable technique for assessing the self-perceptions of pupils with Down Syndrome (Begley & Lewis, 1988).

Projective techniques were initially selected as a potential approach because their lack of structure was expected to reduce the power imbalance between researchers and participants by enabling participants to reveal the salient aspects of their self-perceptions. However, this lack of structure has led researchers to question the validity and scoring of projective techniques (Burns, 1979). Therefore, projective techniques were not employed because the aim of Study 1 was to select instruments that enabled reliable comparisons to be made across a large number of pupils. Furthermore, because the research was specifically concerned with academic, physical and social self-perceptions, the chosen technique needed to be structured to focus on these areas.

The topological technique (Long, Henderson & Ziller, 1967; Ziller, 1973) was selected as a potential instrument because it was designed specifically for participants with poor language skills, and appeared relatively easy to understand and respond to. However, as with the projective techniques, the topological technique was rejected because the validity of the approach has been questioned (Wylie, 1974).

4.4.1 Non-verbal and/or pictorial technique

There are a range of specific non-verbal and/or pictorial instruments available for measuring children's views of themselves. These instruments were considered to be appropriate for pupils with Down Syndrome because they are designed for young

children, they require minimal language comprehension as the stimuli are pictorial, and they require minimal language production as the response is manual. The instruments should also help sustain pupils' attention because they are presented with pictures to which to attend. Finally, these instruments have an objective and easy to administer scoring schedule. They can therefore be utilised by researchers who are unfamiliar with administering assessment instruments and interpreting scores.

From the instruments examined (Begley & Lewis, 1998), The Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) was selected because it showed the greatest potential for assessing the self-perceptions of pupils with Down syndrome. It has been widely utilised and has been successfully used by children with learning disabilities between the ages of 6.6 to 7.6 years (Priel & Leshem, 1990), and by adolescents with Down Syndrome between the ages of 13 and 17 years (Cuskelly & de Jong, 1996). Two versions of the scale are available. The version designed for first and second graders was selected for this research because it was considered to be more relevant to school-aged children and adolescents with Down Syndrome. The scale is described in detail in Chapter 5.

The response format requires children First, to select which of two drawings is most like them, and then to say whether the chosen drawing is 'really' or only 'sort of' like them. This question format is claimed to offset the tendency for children to give socially desirable responses (Harter, 1982). According to Harter (1982) the question format implies that half the population behaves in the same manner as the child in one picture, while the other half of the population acts like the child in the other picture. By legitimising both behaviours as common and acceptable, the respondent is unlikely to view either picture as more sociably desirable. This a beneficial aspect of the scale because, as noted above, children are vulnerable to socially desirable responding. However, since Harter's (1982) claim has not been investigated, there is some doubt as to whether the question format does offset this response tendency (Eiser, Eiser & Havermans, 1994).

Harter and Pike (1984) cautioned that, "Given the structure of this scale ... the scale [should] not be viewed as an index of self-concept or self-esteem per se" (p. 1971). This caution does not invalidate the use of the scale in this research for two reasons. First, the research is not aiming to measure overall self-esteem or self-worth. Instead the research is aiming to assess self-perceptions in school-related domains (namely, academic competence, physical competence, and social acceptance). Therefore, with the exclusion of the maternal acceptance scale, the scale was adequate for this research. Second, the assessment of the self-esteem of pupils with Down Syndrome is likely to be problematic. There has been some controversy over what constitutes a person's self-esteem or self-worth (e.g., Byrne & Shavelson, 1996; Eiser, Eiser & Havermans, 1994; Marsh, 1993). Marsh (1987), for example, argues that children's feelings of self-esteem or self-worth are more likely to be affected by self-perceptions in domains they regard as important. As there is a paucity of research investigating the self-perception domains considered significant by pupils with Down Syndrome, it would not be valid to use self-esteem scales developed and standardised on pupils without Down Syndrome. As the Harter and Pike (1981/1984) scale does not attempt to measure self-esteem, the problem of establishing which self-perceptions are central to the self-esteem of pupils with Down Syndrome is avoided. Instead the scale is adopted to measure perceived competence in school-based activities considered to be relevant to all pupils.

A further strength of the Harter and Pike (1981/1984) scale is that it is based on domains which were first distinguished conceptually and then confirmed through factor analysis (e.g., Harter, 1982/1985/1988; Harter & Pike, 1984; Marsh, 1993; Marsh & Holmes, 1990). However, researchers have criticised the inductive derivation of these self-domains, and therefore the lack of theoretical rationale behind their selection (Eiser et al., 1994). These criticisms were directed at the Perceived Competence Scale for Children (Harter, 1985), which assesses global self-esteem and five separate subscales (scholastic performance, social acceptance, athletic competence, physical appearance and physical performance). Therefore, these criticisms are less relevant to the Harter

and Pike scale (1981/1984) which only assesses four self-domains. Also, the saliency of the self-domains to pupils with Down Syndrome covered by the scale is less critical because the scale does not claim to measure overall self-esteem by summing the self-domain scores. Furthermore, no problems with applicability were encountered during piloting. The scale appeared to have face-validity because each subscale contained questions relating specifically to either academic competence, physical competence or social acceptance.

Four criticisms of the scale were considered relevant to this study. First, the forced-choice format does not enable researchers to ascertain whether a respondent selects a picture because he/she prefers it to the alternative, or because it is the only picture remaining after having rejected the alternative picture. This problem must be taken into consideration when interpreting pupils' responses.

Second, self-report instruments tend to limit pupils' participation by restricting their responses. The pre-determined format does not allow pupils any control over the research process or allow them any freedom to define their own responses. Therefore, the scale is not compatible with the principles of participatory research. However, the Harter and Pike (1981/1984) scale was deemed suitable on the basis of the specificity of the research aims (to assess school-related perceptions) and the language limitations of the sample.

Third, researchers have noted that children sometimes experience practical difficulties completing the scale and understanding the structured alternative response format (e.g., Eiser, Eiser & Havermans, 1994). However, in these studies the scale was administered to groups of pupils, with one or two researchers. To reduce the chances of pupils with Down Syndrome experiencing difficulties with completing the instrument, it was decided to complete the scale with each pupil on a one-to-one basis. The wording of the scale was also changed with the intention of making the scale plainer and thereby aiding pupils' comprehension of the scale (see Chapter 5). The changes were checked during a pilot study with nine pupils with Down Syndrome aged between 8 and 16 years.

Finally, is the possibility of inappropriate target or standardisation groups (e.g., pre-school or culturally different populations) for the entire scale, or specific subscales. The applicability of the scale may be questionable when the research sample differs from the sample of 4 to 7 year olds without learning difficulties on which the scale was developed and standardised. Researchers have found evidence to suggest that factors found in scales for the general population may not be found for pupils with learning difficulties (Renick & Harter, 1990) or for pupils with 'mental retardation' (authors term; Silon & Harter, 1985). In Silon and Harter's (1985) study, for example, the pupils with 'mental retardation' (aged between 9 and 12 years) did not appear to distinguish between academic and physical competence subscales. Instead these two subscales both contributed to a general competence subscale.

In this research, the scale was also used across a wide age range (8 to 16 years). Although utilising the same scale for all age-groups enables reliable comparisons to be made, the composition of each self-domain may change with age (Damon & Hart, 1982). For example, adolescents' social self-perceptions may involve relationships not covered by the scale (e.g., relationships with the opposite sex), and adolescents' physical self-perceptions may not involve the same activities as those covered by the scale (e.g., the ability to skip and swing). Marsh (1993) also questioned whether a given test measures the same component of, for example, physical competence with equal validity for boys and girls of different ages. Therefore, if gender differences are detected, they must be interpreted cautiously, and any interpretations should be based on a detailed examination of the contents of the subscales.

The applicability of the academic scale has also been questioned. Research by Marsh (Marsh, 1993; Marsh, Byrne & Shavelson, 1988; Marsh, Hey, Roche & Perry, 1997) has demonstrated that academic competence may not be a single dimension. Instead academic competence appears to consist of two separate domains, namely, mathematics and reading self-concepts. There is considerable empirical support for this separation (Marsh & Holmes, 1990). If pupils with Down Syndrome differentiate between their mathematical and reading self-perceptions, than the Harter and Pike

(1981/1984) scale will not adequately represent the structure of their self-perceptions. Alternatively, pupils with Down Syndrome may not differentiate between their mathematics and reading self-concepts. As mentioned above, research suggests that the self-concept of pupils with "mental retardation" is less differentiated (Silon & Harter, 1985) than the self-concept of pupils without learning difficulties. Because no research has examined the self-perceptions of pupils with Down Syndrome, assumptions should not be made about the structure of their self-concept.

Instead, it will be necessary to carry out factor analysis on the responses of pupils with Down Syndrome to determine whether they are able to distinguish between academic, physical and social self-domains, and between mathematics and reading self-domains. It will also be necessary to determine whether the structure of their self-perceptions changes with age.

Unfortunately, factor analysis cannot determine the applicability of the three self-domains to the self-concept of pupils with Down Syndrome or the appropriateness of the scale items in comparison to alternative items. This is because factor analysis can only be carried out on the pre-described scale items. Furthermore, Eiser et al. (1994) argued that because subset items are quite repetitive and therefore synonymous, it is unremarkable to expect intercorrelations within domains and the loading of items on a common factor. Eiser et al. (1994) argue that factor analysis may reveal more about the particular method used than the generality of an underlying dimension. In summary, when interpreting the results it will be important to bear in mind the possibility that, in comparison with pupils without learning difficulties, pupils with Down Syndrome may have a difference self-structure, and that scale items may mean different things to pupils of different ages and sexes.

Harter and Pike (1984) reported a number of validity (convergent, discriminant and predictive) and reliability (internal consistency) checks. On the basis of these results, Harter and Pike (1984) concluded the scale to be a valid and reliable instrument.

Because the scale has not been used extensively with children with Down syndrome, validity and reliability checks are required. In this research the internal reliability of the

scale was checked statistically. However, Eiser et al. (1994) question whether the repetitiveness of items may inflate the internal reliability of different domains. Test-retest reliability was not checked in this research because pupils' time was already taken up by the administration of a second instrument about a week after the Harter and Pike (1981/1984) scale. This omission was deemed acceptable because the scale's re-test reliability has been demonstrated as satisfactory over a 1 week period for adolescents with Down Syndrome (Cuskelly & de Jong, 1996).

Assessments for validity are more problematic: to assess the validity of children's responses, a teacher's rating scale is available which parallels the children's instrument (Harter & Pike, 1981/1984). The validity of social acceptance scores could be assessed by examining differences between the responses of pupils rated by their peers as popular, unpopular and rejected. Likewise the validity of physical competence scores could be assessed by examining differences in the responses of pupils rated by parents or teachers as having or not having physical difficulties. However, comparing the judgements of pupils and significant others (e.g., teachers, parents and peers) may not provide a sound assessment of validity, because, according to Harter and Pike (1984), children tend to overestimate their abilities. Furthermore, the research aim was to assess pupils' self-perceptions, regardless of whether these perceptions agreed or disagreed with other sources. After all, it is a pupil's self-perceptions that are likely to affect his/her behaviour and feelings of self-worth. To check children's comprehension of the scale items, Harter and Pike (1984) asked children to give reasons for their responses. This validity check could have been adopted with a sub-sample of pupils with Down Syndrome who do not have severe difficulties with language production.

However, none of the above mentioned validity checks were carried out in this research. This was because first, significant others were not deemed appropriate for comparison purposes, and second, the validity check used by Harter and Pike (1984) would have been suitable only for more language proficient, and therefore a non-representative sub-sample of, pupils. Instead, reliability and validity were checked by assessing the internal reliability on the scale, and by comparing the scale responses

with pupils' responses to the second assessment instrument (i.e., a Situation Grid; described below).

4.4.2 Construct generation techniques

The second instrument was the Situations Grid. This grid was adapted from Edwards (1988). The Situations Grid is appropriate for use with children as young as 4 years (Edwards, 1988). It requires minimal language comprehension as the stimuli are pictorial, and it requires minimal language production as the response is manual. The grid should also help maintain attention because pupils are presented with pictures to attend to and manipulate. Finally, Situation Grids are easy and quick to administer and score.

As there has been little research identifying which constructs are likely to be meaningful to children with Down syndrome (for exception see; Oliver, 1986), it was decided to elicit constructs from pupils with Down Syndrome to use in the grid. Using elicited constructs would make the grid more valid because it will be based on the language used by the pupils, rather than the researcher. Therefore, before devising the grid, a pilot study was carried out using the Repertory Grid Technique with nine pupils with Down Syndrome aged between 8 and 16 years. From the pilot study, five of the constructs elicited from pupils with Down Syndrome were selected for use in the Situations Grid.

A number of different forms of the Repertory Grid Technique have been developed since Kelly's (1955) formulation. Several of these are appropriate for children (Ravennette, 1968; Salmon, 1976; Butler, 1985) and for people with learning disabilities (Barton, Walton & Rowe, 1976; Hulbert & Atkinson, 1987; Fox & Norwich, 1992). Researchers emphasise the need to make tasks as concrete as possible when working with children (Butler, 1985) and people with learning disabilities (Szivos, 1993). Consequently, researchers have employed photographs as elements for these participants (Hulbert & Atkinson, 1987; Fox & Norwich, 1992; Maras & Brown, 1996). On

the basis of these findings, the elements used in the pilot study were photographs of each pupil and photographs of his/her classmates.

Two methods for eliciting constructs that appeared appropriate, because of their simplicity, for pupils with Down syndrome are dyadic comparisons and categorisation. The Dyadic Comparison Technique was adopted.

The construct generation technique was chosen because it allowed pupils to 'speak for themselves' without restricting their responses. The technique aimed to provide a valid measure of how pupils view themselves by identifying the most salient and central aspects of the individual pupil's self-perceptions. The technique is flexible and the availability of different forms of construct elicitation allows for heterogeneity in pupil's capabilities and preferences.

However, there is controversy as to whether or not these techniques can be subjected to reliability and validity checks. Fransella and Bannister (1977) argue that it is not possible to talk about the validity and reliability of the Construct Generation Technique because of the infinite number of forms that the technique can take. Instead, they provide a list of criteria to facilitate the construction of a valid format. These include ensuring that the elements are familiar and meaningful to the participant; that the constructs are relevant to the elements and that the constructs can be used by the participant to make sense of the elements. In the pilot study the elements were expected to be familiar and meaningful to the participants because they were photographs of the pupil's classmates. The criteria relating to constructs is not relevant to this research because the constructs were elicited from the pupils, rather than provided by the researcher.

It was decided not to use the Repertory Grid Technique across the entire sample because it is timely to complete, and the aim study 1 was to collect data from a large sample of pupils. Instead a Situations Grid was devised using constructs elicited from a subsample of pupils, to explore the self-perceptions of pupils with Down Syndrome in school situations. There was a correspondence between the contents of the scale (Harter & Pike, 1981/1984) and the Situations Grid so that correlations between the two

instruments could be computed to assess their reliability and validity. The internal reliability of the grid was established by assessing the internal correlations between the positive and negative constructs across different school situations.

Because few studies have utilised the Situations Grid approach, the use of this instrument was largely exploratory. It was selected on the belief that it would be suitable for pupils with Down Syndrome, and because it met certain ethical requirements (e.g., enabling pupils to participate by providing constructs used to create the Situations Grid). The Situation Grid also provided a flexible approach which other researchers may adopt and adapt to their own research purposes by, for example, using different situations to school situations and eliciting constructs using different elements to classmates.

4.5 Summary

A quantitative approach was deemed most suitable for study 1 because such an approach aims to collect reliable data from a large, representative sample. Having chosen the approach, it was necessary to select the procedure and instruments for study 2 on the basis of a number of ethical and methodological issues. The methods and results from the pilot studies leading up to study 2, and from study 2 are presented in the next chapter.

CHAPTER 5

METHODS AND RESULTS FOR STUDY 1

5.1 Introduction

The section will begin with a description of the two pilot studies (1a and 1b) carried out to test and refine the methods to be used in study 1. The sample, instruments and procedure for the main study are then described in detail. The results from study 1 are presented in the second part of the chapter. (A time line showing the sequence of studies is shown in Appendix 1).

5.2 Pilot studies

5.2.1 Sample

Eight pupils (four females and four males), aged between 8 and 16 years were involved in the two pilot studies. The pupils attended a special school in the Midlands for pupils with severe learning difficulties. Before the pilot study, I had met each pupil on two occasions. Letters were sent to parents asking if they would allow their child to participate (see Appendix 2.1). All the parents agreed.

5.2.2 Assessment conditions

I interviewed each pupil individually away from their classroom. For the two pupils who used sign language as their main method of communication, an assistant teacher from the pupil's classroom was present for the interviewing. The assistant teachers acted as interpreters, translating the pupil's sign language.

5.3 Pilot study 1a: Repertory Grid Technique

5.3.1 Materials

Photographs of each pupil and his/her classmates were used to elicit constructs and for the ranking methods.

For the rating task a seven-point schematic face scale was used. The scale was a modified version of Nicholls' (1978) scale designed to assess children's self-perceived reading competence. The scale used for this study consisted of a sheet of paper with seven schematic faces drawn from the top to the bottom of the page.

5.3.2 Procedure

Eliciting personal constructs. The photographs were placed in front of the pupils so that all the photographs were visible. The pupils were asked to identify and name each of the pupils in the photographs, to establish they recognised them.

The self-photograph was labelled with the letter 'G' and removed. Each photograph used for the ranking tasks was labelled with a letter to ease the data recording for the ranking methods. The pupils were asked to select a person from the remaining photographs, who they felt was, 'good at school work. Who is good at things like reading, writing and maths?'. The selected photograph was then labelled 'A' and removed. This selection procedure was repeated using each of the following five role-titles;

'a person who is bad at school work. Who is not good at things like reading, writing and maths?' (the chosen photograph was removed and labelled 'B'),

'a person who is good at sports. Who is good at things like running and playing ball?' (removed and labelled 'C');

'a person who is not good at sports, Who can't run very fast or play ball games?' (removed and labelled 'D');

'a person who has lots of friends?' (removed and labelled 'E');

'a person who doesn't have lots of friends?' (removed and Labelled 'F').

One pupil was unable to select the photographs in response to the supplied role-titles. On this occasion the assistant teacher, who had more knowledge of the pupils than myself, was asked to select a photograph she felt fitted each role-title. These were then used for the elicitation task.

The unselected photographs were removed. The first selected photograph (labelled 'A') was then placed in front of the pupils, next to their self-photograph (labelled 'G'). Whilst pointing at the two photographs I asked the pupils, 'How is (name of person 'A') different from you?'. The answer was treated as a construct. This procedure was repeated for each of the other five selected photographs. For each of the six comparisons, I continued inquiring about differences until pupils chose a construct deemed suitable for ranking the photographs.

Three of the pupils did not appear to understand the concept of 'difference'. Two of these pupils were able to talk about the 'similarities' between themselves and each of the selected photographs. The similarities mentioned were treated as constructs.

The remaining pupil was unable to understand the concepts of 'different' and 'similar'. To elicit constructs, the pupil was asked questions, such as: What is (name) like?, what is (name) good at?, what does (name) find hard?, what is he/she not good at?, what does (name) like doing best? and so on.

One pupil was not included in the pilot study because she did not respond to any requests or questions posed by myself or assistant teacher. This pupil seemed unable to comprehend any form of the task. After attempts to elicit constructs from this pupil had failed, it was decided by myself and assistant teacher to abandon the attempts.

Ranking elicited constructs. Pupils were asked who from the selected photographs and self-photograph, most or best represented their first construct. For example, if their first construct was *clever* the child was asked, 'Who out of these children is the most *clever*?'. The selected photograph was removed and ranked '1'. The question, 'Who out of these children is the most *clever*?', was then repeated in reference to the remaining photographs. The second selected photograph was removed and ranked '2'. This procedure was repeated until all the photographs had been ranked for all six constructs. Tied ranks were allowed only if the child was unable to discriminate between the elements for a particular construct ranking.

Two pupils, who had spent a long time completing the elicitation task, were not asked to complete the ranking tasks. I felt it unfair to ask the pupils to complete two further tasks. I also expected that the ranking tasks would have been difficult for the two pupils to understand.

Ranking elicited constructs using a rating scale. The seven photographs were placed in front of the pupil to the right-hand side of the rating scale. Pupils were told that the faces on the scale represented their classmates in the photographs. I pointed to the top circle and explained that this face was the person who was the most or the best at the pupils' first construct. For example, 'This child is the most *clever* child'. The bottom circle was described as the least or the worst at the first construct. For example, 'This child is the least *clever* child'. The intermediate circles were described as being in the middle. For example 'These children are in the middle, they are not the most *clever* or the least *clever*, they are in-between'.

Nicholls' (1978) procedure was followed to check that each pupil could correctly identify the faces representing a high, medium and intermediate position on the constructs,. The pupils were asked to, for example, 'Point to the child who is the most *clever* ... Point to the child who is the least *clever* ... Point to the child who is not the most *clever* and is not the least *clever* but is in-between'.

Pupils were then asked to select a photograph of the pupil who was the most or the best at the first construct and to place it by the relevant face. For example, Pupils were asked 'Now can you show me who is the most *clever*? Place the most *clever* person at the top of the scale'. Once pupils had placed the most *clever* person at the top of the scale they were asked to place the next most *clever* person below the person already on the scale. This procedure was repeated until all of the photographs were placed on the scale, for each of the pupils' six constructs.

Once all the photographs have been placed on the scale together for a particular construct, the pupils were given the opportunity to rearrange any of the photographs if they wanted to.

The aim of pilot study 1a was to assess the utility of the Repertory Grid Technique

(Kelly, 1955) with pupils with Down Syndrome. On the basis of the pilot study the

repertory grid was not selected for use in the main study. Due to the length of time

taken to complete the grid and the difficulties some pupils experienced with completing

the elicitation and ranking stages of the technique, it was not considered suitable for

collecting data from a large sample of pupils across a wide ability range.

Pilot study 1a proved beneficial for three additional reasons. First, by becoming

familiar with me, the pupils were likely to be more at ease for pilot study 1b. Second,

pilot study 1a showed that the repertory grid is suitable for some pupils with Down

Syndrome. Finally, the constructs derived from pilot study 1a were used to compile the

Situations Grid used in study 1.

5.4 Pilot study 1b: Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) and the Situations Grid

5.4.1 Measures

The wording of the Pictorial Scale of Perceived Competence and Acceptance was

modified to make the language in the scale as plain as possible. A word or sentence

was changed if it was perceived to be uncommon in the English language (e.g., 'pretty

many'), and/or beyond the comprehension skills of children with Down Syndrome (e.g.,

'sort of') and/or unnecessary (e.g., 'very') (for the list of wording changes see Appendix

3.2). According to the standard format, for example, female pupils are asked, 'A few

kids share their toys with this girl and pretty many kids share their toys with this girl.

Which girl is most like you?'. According to the revised format pupils were asked, 'Not a

lot of kids share their toys with this girl and a lot of kids share their toys with this girl.

Which girl is most like you?'.

The wording of the standard four-point response format was also changed to match

that employed in the School Situations Grid, described below, (i.e., 'all of the time',

'some of the time' and 'none of the time'). According to the standard format, for

example, pupils who select the picture of the more socially-accepted child are asked, 'Do pretty many kids or a whole lot of kids share their toys with you?'. According to the revised format pupils were asked, 'Do kids share their toys with you all of the time or some of the time?'. It was assumed the pupils would benefit if the wording remained consistent throughout the scale and grid.

5.4.2 Procedure

The Scale and Grid were administered to the pupils using the same procedure as that used in study 1 (see below).

Only one pupil (male, aged 11-12 years) did not complete the Situations Grid. The pupil may not have completed the grid because he felt uncomfortable away from classroom, or he may simply have not understood the grid. To determine whether the former was true it would have been beneficial to work with the pupil in the classroom. However, this suggestion was not attempted as the teacher felt it would be a good learning experience for the pupil to work outside the classroom.

5.4.3 Summary

Pilot study 1b aimed to assess the practicality of using the first/second grade version of the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) and a Situations Grid (adapted from Edwards, 1988) to assess the self-perceptions of pupils with Down Syndrome between the ages of 8 and 16 years. The results were also analysed to determine the type and utility of the information that such measures would provide.

This pilot study proved useful in determining the appropriateness of the wording changes made to the Harter and Pike (1981/1984) scale. All the pilot study pupils understood and responded reliably to the scale.

The pilot study also resulted in alterations being made to the response format of the Situation Grid. Three post-boxes were used to provide a three-point rating response on the grid. An uncoloured-in picture of a clock face was attached to the box representing,

'a lot of the time', a half coloured-in clock face was attached to the box representing, 'some of the time', and a fully coloured-in clock face was attached to the box representing, 'none of the time'. It was assumed before the pilot study, that an coloured-in clock-face would best represent the response, 'a lot of the time', and an uncoloured clock-face would best represent the response, 'none of the time'. However, this assumption was revised early in the pilot study on the basis of the pupils' responses. Responses to the sample questions suggested that pupils tended to associate a coloured-in clock-face with, 'none of the time' and an uncoloured clock-face with, 'a lot of the time'.

5.5 Study 1

5.5.1 Sample

The sample consisted of 96 pupils (females = 51; males = 45). There were three age groups: 8 to 10 years (n = 27), 11 to 13 years (n = 30), and 14 to 16 years (n = 39). It was important to have a large sample of pupils because the aim of study 1 was to provide a data set on the self-perceptions of pupils with Down Syndrome. Furthermore, a large data set is required to ensure the reliability of any statistical analysis carried out on the data.

The age range was chosen because it represents a time span over which children experience major maturational (e.g., puberty) and cognitive (e.g., perspective-taking skills) milestones thought to influence personal-social development. The age range also covers changes in educational programmes (e.g., increasing emphasis on academic skills).

The pupils attended special schools for pupils with severe learning difficulties (n = 46), special schools for pupils with moderate learning difficulties (n = 34) and mainstream schools (n = 16). Identifying pupils with Down Syndrome in mainstream schools proved more problematic than finding their counterparts in special schools. A large number of special schools in the Midlands were contacted by phone and, if head teachers showed interest in the research, a follow-up letter detailing the study (see Appendix 2.3) was

sent to school. All the special schools contacted had pupils with Down Syndrome enrolled, and all showed interest in the research.

Unfortunately, due to the vast number of mainstream schools in the Midlands, it was not practical to contact all the mainstream schools to identify those which enrolled pupils with Down Syndrome. Instead the sample were identified using three strategies. First, the Down Syndrome Association kindly distributed a letter (see Appendix 2.4) to members of the Down Syndrome Association in the Midlands to ask any interested parents to respond. Second, Educational Psychologists at the Local Educational Authorities in the Midlands were contacted for help. Finally, teachers at different special and mainstream schools were able to identify schools which they knew had a pupil with Down Syndrome. Unfortunately the mainstream sample is small because only a small number of pupils with Down Syndrome are integrated in mainstream schools in the Midlands.

All the pupils attended schools in the Midlands. This was convenient because I live and study in the Midlands.

5.5.2 Measures

Two measures were used to assess pupils' self-perceptions of their competence and acceptance.

The Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984). The first/second grade version of the scale was selected. After reading both scales this version was deemed more appropriate than the pre-school version, for pupils with Down Syndrome between the ages of 8 and 16 years. None of the pupils in the pilot study had difficulties identifying with the skills, activities and experiences referred to in the scale. The first/second grade version contains scholastic skills, physical activities and social experiences that school-aged children should be able to relate to, for example, writing words, adding, playing with friends in the playground, climbing and running. By contrast, the pre-school/kindergarten version contains items not related to

school and more relevant to children younger than 8 years old, for example, being able to tie shoe laces, knowing the first letter of your name.

The 24-item questionnaire covers four domains (academic competence, physical competence, social acceptance and maternal acceptance). Three of the subscales of the first/second grade version were used. These were the academic competence, physical competence and social acceptance subscales. The maternal acceptance subscale was not included as the aim of this study was to assess pupils' perceptions of themselves in relation to school. Each subscale comprises six items, constituting a total of 18 items. The items are presented in a pictorial format and each item depicts a specific skill (e.g., writing), action (e.g., running), or activity (playing with friends) (for example, see Appendix 3.3). There are separate booklets for males and females. The pictures depicted in the two booklets are identical, except for the gender of the depicted child. For half the items in each subscale the more competent child is on the left (and therefore described first), and for the remaining half the more competent child is on the right. The items are ordered so that for every set of three questions the academic competence items come first, the social acceptance items come second and the physical competence items come third. This pattern is repeated throughout the scale. When the booklet is open, the right-hand pages, which face the pupils, depict the pictorial items and the left-hand pages, which face the researcher, are printed with the item descriptions and questions relevant to the picture facing the pupil. This structure enables the researcher to read the appropriate item description, while pupils look at the appropriate pictorial depiction.

Each item is scored on a four-point scale, with a score of 1 indicating least competence or acceptance and a score of '4' indicating maximum competence or acceptance The lowest total score for the three subscales is 18 and the highest total score is 72. Item scores are averaged across the six items in each subscale. This provides three mean scores: two indicating perceived competence (i.e., the academic and physical subscales) and one indicating perceived social acceptance.

The Situations Grid. The grid was devised for the study and adapted from Edwards (1988). The grid was adapted to make it appropriate for pupils between the ages of 8 and 16 years (Appendix 4.1). Nine school-situations were chosen to mirror those found in the Pictorial Scale of Perceived Competence and Acceptance and to represent experiences relevant to school-aged pupils. The situations were: writing, reading and mathematics (academic competence); running, swimming, ball games (physical competence); and being on my own, being with my teacher, being with lots of friends (social acceptance).

The constructs were selected on the basis of two criteria. First, the constructs had been used by the majority of the pupils in pilot study 1. Therefore, the constructs should be meaningful to pupils with Down Syndrome between 8 and 16 years. Second, the five constructs *(i.e., good, hard, happy, likes and naughty)* were chosen from the total pool on the basis of frequency, and applicability to the school situations.

Line drawings photocopied from two Reading Schemes (i.e., The New Way Reading scheme and the Oxford Reading Tree scheme) and from the Harter and Pike (1981/1984) scale were used as visual signifiers. Permission to use these picture was obtained for the two schemes and the Harter and Pike (1981/1984) scale. Five copies were made of the nine drawings, selected to represent the nine school-situations. The copies were mounted on card to make them more durable and easier to handle. A total of 85 pictures were used: 45 pictures of female children (five copies of the pictures showing females doing each of the nine school-situations), and 40 pictures of male children (which consisted of five copies of the pictures showing males doing eight of the school-situations). For the 'working with my teacher' element, the male pupils were shown the picture of a female pupil working with a teacher. This was because a male equivalent was not found. However, all of the male pupils seemed to understand the questions relating to this school-situation, and did not comment on the fact that the child in the picture was female.

Each item is scored on a three-point scale, with 1 denoting an 'all of the time' response, 2 denoting a 'some of the time' response, and 3 denoting a 'none of the time'

response. The lowest total score for the three self-concept domains is 45 and the highest score is 135. The scores can be averaged across the elements and five constructs in each self-domain. This provides three mean scores: one indicating the pupil's academic self-perceptions (the average of the responses to the five constructs across the four academic situations); one indicating the pupil's social self-perceptions (the average of the responses to the five constructs across the three social situations); and one indicating the pupil's physical self-perceptions (the average of the responses to the five constructs across the three physical situations).

5.5.3 Procedure

There was a three-tier process for gaining consent. Schools and teachers were contacted first, then parents and finally the pupils. All of the schools agreed to participate. Five parents refused to allow their children to participate. Therefore, it was not possible to provide these pupils with the opportunity to participate in the research. Pupils were asked whether they would consent to participate on each school visit. Two pupils refused to participate.

Each pupil was visited at least twice. On the first visit I introduced myself and explained I was not a teacher. I told pupils I was visiting lots of pupils in different schools to find out what young people think and feel about themselves in relation to school work, physical education (PE) and sports, and their friends. The pupils were assured that no one, except myself, would know what they said. On each visit the pupils were asked if they would help with the study and were told they could refuse to participate at any time. The Pictorial Scale of Perceived Competence and Acceptance was completed once the pupil had become familiar with me. The School Situations Grid was administered on the final visit. If a pupil did not appear to understand, questions and/or procedures were repeated and if necessary re-phrased. In the majority of cases I worked alone with pupils. However, a teacher was present if a pupil used sign language (two pupils) or if the teacher asked to be present (one teacher). The location of the interview (in or away from the classroom) was determined by asking teachers where

they felt each pupil was likely to feel most comfortable working. Seven pupils were interviewed in the classroom and 89 were interviewed away from the classroom. At the end of each meeting, the pupils were thanked for participating.

The Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) was administered individually to each pupil. In line with the standard procedure, pupils decided which of two types of children presented in pictorial format, one representing a high level of competence or acceptance and one representing a low level of competence or acceptance, was most like them. They then indicated whether the chosen child was 'really' or only 'sort of' like them. The whole scale took, on average, about 20 minutes to complete.

The School-Situations Grid was administered individually to each pupil. The pupils were told that I wanted to find out how often they felt certain things and acted in certain ways in the classroom, in the playground, and in PE lessons.

The pupils were asked three sample questions to ensure that they knew which box represented 'all of the time', 'some of the time' and 'none of the time'. They were given a picture and told that the child in the picture was doing or feeling something 'all of the time', 'some of the time', or 'none of the time'. They were then asked to post the picture in the relevant box. This was repeated with the trial pictures until pupils repeatedly posted the sample pictures into the correct response box. To ensure that the pupils remembered which box represented which response, I pointed to the appropriate response box when asking each question throughout the grid. To control for any order effects, such as boredom, fatigue or practice, the orders of the three self-domains, five constructs and three response-boxes were changed randomly.

After the sample questions, the situations-grid was administered. Pupils were shown a picture a situation (e.g., a child writing). They were then asked whether they were '*good at*' the activity, (e.g., 'Are you *good at writing*?'). When the pupil answered this question, they were asked, 'Do you think you are *good at* writing *all of the time*? (while pointing at

the relevant box), *good at* writing *some of the time?* (while pointing at the middle box) or *good at* writing *none of the time?* (while pointing at the relevant box). Put the picture in the box that is right for you'. The same process was repeated for the same situation for the remaining four constructs. Each time a different construct was applied to a situation, the pupil was given a picture of the situation. The same process, of applying five constructs to a school situation, was then repeated for the eight remaining school situations. The grid took on average 20 minutes to complete.

Coding for analysis. Two sets of reversals were carried out on the raw data for the School Situations Grid prior to analysis. The reason was to make '3' the most positive and '1' the least positive response throughout the Grid.

First, the raw scores for the negative constructs were reversed for all situations, except 'on my own'. These scores were reversed on the assumption that pupils who felt competent within the academic, social and physical domains, would not perceive the activities within these domains as hard, and they would not perceive themselves as naughty within these domains.

Second, the raw scores on the positive constructs (*Good at, Happy,* and *Likes*) for the situation 'on my own' were reversed. These scores were reversed on the assumption that pupils who perceived themselves to be socially competent and accepted would not perceive themselves to be good at, happy when, and liking being alone, and would perceive themselves as finding it hard and being naughty when alone.

Analysis. Because the statistical tests used did not require a normal distribution, it was not essential for my data to be normally distributed. However, the mean scores for the scale and grid are presented. These are not strictly mean scores because they are based on ordinal, rather than interval data. The means are presented to aid interpretation of the findings. Furthermore, since most of the data fitted into a normal distribution (see Appendix 5), the mean should be similar to the mode and median (Cramer, 1994).

For large samples the frequency distribution of a Mann-Whitney or Wilcoxon test statistic often asymptotically approaches a normal distribution so that 'Z' values can be used as a test statistic (Mundry & Fischer, 1998). For large samples, the test statistic of the Kruskal-Wallis test approaches a chi-squared distribution (Mundry & Fischer, 1998). Due to the distribution of the test statistic approaching a normal or chi-squared distribution, the common consensus among statisticians is that when large samples are used, any deviation between the mean approximation used in statistical tests and the real mean are so negligible that there is little justification for not treating them as if they were the same (Siegal & Castellan, 1988). The requisite sample sizes for each of the non-parametric tests used in the analysis were checked. According to Siegal and Castellan (1988) the size of the sample in study 1 was sufficient to be considered a large sample for the Mann-Whitney (N= >10), Wilcoxon (N1 = 3 or 4 and N2>12; N1 > 4 and N2 >10) and Kruskal-Wallis (Number of samples = 3: N> 13) tests.

5.6 Results

Of the 96 pupils, 87 pupils were able to complete the Pictorial Scale (Harter & Pike, 1981/1984) and 64 pupils were able to complete the School Situations Grid. There were no significant differences between the scale scores of the 23 pupils who only completed the scale and 64 pupils who completed both measures. Therefore, to ease presentation of the results, when the findings from the scale and the grid are compared, the 64 pupils who completed both measures are presented. When the scale is examined separately (i.e., factor analysis) all the 87 pupils who completed the grid are included.

5.6.1 Self-domains

a) Item means and ranges

Table 1a shows the mean self-perception scores averaged across the sample for the three self-domains. The Pictorial Scale of Perceived Competence and Acceptance was scored on a four-point scale with '4' representing the most positive self-perception score and '1' representing the least positive. On the Scale, the mean scores ranged from 3.42

for social acceptance to 3.52 for physical competence. Pupils with Down Syndrome had higher self-perception scores than the first (mean age = 6.32) and second graders (mean age = 7.41) on which the scale was originally evaluated (Harter & Pike, 1984). Comparisons between the ranges of the scores between these two groups was not possible because ranges were not reported for the first and second graders in Harter and Pike's (1984) study.

The School Situations Grid was scored on a three-point scale with '3' representing the most positive self-perception score, and '1' representing the least positive. On the Grid, the mean scores ranged from 2.37 for social acceptance to 2.49 for physical competence.

On both instruments, pupils with Down Syndrome had high self-perception scores for each domain and higher scores for the two competence domains than the acceptance domain. However, the ranges were large, which indicates considerable variation within each domain between pupils. Furthermore, no pupils scored the lowest score of 1 on the scale, while the range did reach the highest score of 4. For the grid, the scores ranged from the lowest to the highest score.

Table 1a. Mean scores on both instruments for each self-domain for the 87 pupils with Down Syndrome who completed the Pictorial Scale of Perceived Competence and Acceptance and the 109 first/second grades who completed the scale in the study by Harter & Pike (1984)

	Pictorial Scale of Perceived Competence and Acceptance						School Situations Grid					
	Academic		Physical		Social		Academic		Physical		Social	
	mean	range	mean	range	mean	range	mean	range	mean	range	mean	range
Pupils with Down Syndrome (N = 64)	3.47	1.5 - 4.0	3.52	2.5 - 4.0	3.42	1.5 - 4.0	2.46	1.0 - 3.0	2.49	1.0 - 3.0	2.37	1.0 - 3.0
First/second grades (N = 109)	3.4		3.4		3.1							

The highest self-perception score for the scale is '4' and for the grid is '3'. The lowest score for the scale and grid is '1'.

b) Age differences

Table 1b shows the mean self-perception scores across the three age groups. On both instruments, the 14 - 16 year age group had higher self-perception scores than the 8 - 10 year age group. On the Pictorial Scale of Perceived Competence and Acceptance the 11 - 13 year age group had the lowest academic and social self-perception scores and the highest physical self-perception score. On the School Situations Grid, self-perceptions increased across the three age groups. Most of the lower ranges are above the lowest score on the scale and the grid (i.e., 1). All of the top ranges reach the highest scores of the scale (i.e., 4) and the grid (i.e., 3).

Mann-Whitney-U tests revealed significant differences on the School Situations Grid between the 8 - 10 and 11 - 13 year age groups for social acceptance (U = 2689.5, W = 6784.5, Z = -4.6299, p = <0.05), and between 8 - 10 and 14 -16 year age groups for all three domains; academic (U = 5045.5, W = 9140.5, Z = -2.2192, p = <0.05), physical (U = 5036.0, W = 9131.0, Z = -2.2420, p = <0.05) and social (U = 4064.5, W = 8159.5, Z = -4.4499, p = <0.05). (The reported two tailed p values were corrected for ties). No significant differences were found on the Pictorial Scale.

Table 1b. Mean scores for each of the three age groups on both instruments for each self-domain

	Pictorial Scale of Perceived Competence and Acceptance						School Situations Grid					
	Academic		Physical		Social		Academic		Physical		Social	
	mean	range	mean	range	mean	range	mean	range	mean	range	mean	range
8 - 10 yrs. (n = 18)	3.47	2.5 - 4.0	3.52	2.5 - 4.0	3.45	2.83 - 4.0	2.37	1.0 - 3.0	2.41	1.33 - 3.0	2.22	1.0 - 3.0
11 - 13 yrs. (n = 19)	3.39	1.5 - 4.0	3.58	2.5 - 4.0	3.30	1.5 - 4.0	2.44	1.33 - 3.0	2.48	1.0 - 3.0	2.42	1.33 - 4.0
14 - 16 yrs. (n = 27)	3.52	1.17 - 4.0	3.48	2.17 - 4.0	3.47	2.5 - 4.0	2.53	1.0 - 3.0	2.54	1.0 - 3.0	2.42	1.33 - 3.0

The highest self-perception score for the scale is '4' and for the grid is '3'. The lowest score for the scale and grid is '1'.

c) Gender differences

Table 1c shows the self-perception scores across female and male pupils. On both instruments and for all self-domains, females had higher self-perception scores than

male pupils. Mann-Whitney-U tests revealed significant differences on the School Situations Grid, between female and male pupils for academic competence ($U = 10912.5$, $W = 23002.5$, $Z = -2.3326$, $p = <0.05$) and social acceptance ($U = 11165.0$, $W = 23255.0$, $Z = -2.0735$, $p = <0.05$). (The reported two tailed p values were corrected for ties). No significant differences were found on the pictorial scale.

Table 1c. Mean scores for female and male pupils on both instruments for each self-domain

	Pictorial Scale of Perceived Competence and Acceptance						School Situations Grid					
	Academic		Physical		Social		Academic		Physical		Social	
	mean	range	mean	range	mean	range	mean	range	mean	range	mean	range
Female (n = 33)	3.52	1.5 - 4.0	3.58	2.5 - 4.0	3.44	1.5 - 4.0	2.52	1.0 - 3.0	2.50	1.0 - 3.0	2.41	1.0 - 3.0
Male (n = 31)	3.42	2.17 - 4.0	3.45	2.5 - 4.0	3.39	2.17 - 4.0	2.39	1.0 - 3.0	2.48	1.0 - 3.0	2.32	1.33 - 3.0

The highest self-perception score for the scale is '4' and for the grid is '3'. The lowest score for the scale and grid is '1'.

d) School placement differences

Pupils in mainstream schools had higher self-perception scores than pupils in special schools. The only exception was the physical domain for the Pictorial Scale, in which pupils in special schools had a higher self-perception score. Pupils in schools for moderate learning difficulties had higher self-perception scores than pupils in schools for severe learning difficulties. The only exception was the physical domain on the School Situations Grid in which pupils in schools for severe learning difficulties had a higher self-perception score. Mann-Whitney-U tests revealed no significant difference between pupils in special schools and mainstream school.

Summary

Table 1d is a summary table showing which differences between age, gender and school placement group comparisons across the two instruments reached, and which did not, reach statistical significance.

Table 1d. Summary table showing where the mean scores between age, gender and school placement groups reached statistical significance for both instruments

	Pictorial Scale of Perceived Competence and Acceptance			School Situations Grid		
	Academic	Physical	Social	Academic	Physical	Social
AGE: 8 - 10 & 11 -13 yrs.	No Sign Diff (8-10 higher score than 11-13 yrs.)	No Sign Diff (11- 13 higher score than 8-10 yrs.)	No Sign Diff (8-10 higher score than 11-13 yrs.)	No Sign Diff (11-13 higher score than 8-10 yrs.)	No Sign Diff (11-13 higher score than 8 - 10 yrs.)	<u>Sign Diff</u> (11-13 higher score than 8 - 10 yrs.)
8 - 10 & 14 - 16 yrs.	No Sign Diff (14-16 higher score than 8-10 yrs.)	No Sign Diff (8- 10 higher score than 14-16 yrs.)	No Sign Diff (14-16 higher score than 8 - 10 yrs.)	<u>Sign Diff</u> (14-16 higher score than 8-10 yrs.)	<u>Sign Diff</u> (14-16 higher score than 8-10 yrs.)	<u>Sign Diff</u> (14-16 higher score than 8 - 10 yrs.)
11 - 13 & 14 - 16 yrs.	No Sign Diff (14-16 higher score than 11-13 yrs.)	No Sign Diff (11-13 higher score than 14-16 yrs.)	No Sign Diff (14-16 higher score than 11-13 yrs.)	No Sign Diff (14-16 higher score than 8-10 yrs.)	No Sign Diff (14-16 higher score than 8-10 yrs.)	No Sign Diff (11-13 same mean score 14 -16 yrs.)
GENDER: females & males	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)	<u>Sign Diff</u> (females higher score than males)	No Sign Diff (females higher score than males)	<u>Sign Diff</u> (females higher score than males)
SCHOOL TYPE: Mainstream & Special schools	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Special higher score than Mainstream)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)

Sign. Diff. = significant difference.

5.6.2 Constructs

a) Item means and ranges

Table 2a shows the mean self-perceptions for each of the five constructs. The mean scores show that on average pupils have high self-perceptions, scoring nearer to 3. However the ranges are quite high, showing considerable variation among pupils. The means also range from 1.67 to the highest score on the grid (i.e., 3). The mean for the construct *hard* is close to 2 (i.e., a 'some of the time' response). This suggests that finding something hard may be a more neutral construct representing neither positive nor negative self-perceptions.

Wilcoxon matched-pairs tests were carried out to detect any significant differences between the means for the constructs. A significant difference was found between the hard and good ($Z = -6.6465$, $p = <0.05$), hard and happy ($Z = -6.6070$, $p = <0.05$), hard and likes ($Z = -6.4515$, $p = <0.05$), naughty and good ($Z = -6.8253$, $p = <0.05$), naughty and happy ($Z = -6.7832$, $p = <0.05$), naughty and likes ($Z = -6.8012$, $p = <0.05$) naughty and hard ($Z = -5.7781$, $p = <0.05$).

Table 2a. Showing the sample means and ranges for each construct

	Good at		Hard		Happy		Likes		Naughty	
	mean	range	mean	range	mean	range	mean	range	mean	range
Pupils (N = 64)	2.48	1.67 - 3.0	2.25	1.67 - 2.78	2.45	1.78 - 3.0	2.42	1.78 - 3.0	2.58	1.67 - 3.0

'3' represents the highest self-perception score and '1' represents the lowest score.

b) Age differences

Table 2b shows the mean self-perceptions across the three age groups. In general, the table shows that the mean self-perception scores rise across the three age-groups. This indicates that self-perceptions become more positive with age. Older pupils see themselves as more good at, happier when doing and liking school-related situations more than younger age groups. Older pupils also appear to find school situations less hard and perceive themselves as less naughty in school situations than younger pupils.

Kruskal-Wallis H tests were carried out to detect any significant differences between the age-groups. A significant difference was found for the construct *good at* (df = 2, chi-squared = 10.0051, p= <0.05) and for the construct *happy* (df = 2, chi-squared = 6.3252, p= <0.05).

Mann-Whitney-U tests were carried out to detect which age-groups differed significantly for the constructs *likes* and *naughty*. Significant differences were found for the construct *good at* between the age-groups 8-10 and 11-13 years (U = 101.0, W = 272.0, Z = -2.1444, p= <0.05), and 8-10 and 14-16 years (U = 1i2.5, W = 283.5, Z = -3.0451, p= <0.05). A significant difference was found for the construct *happy* between the age-groups 8-10 and 14-16 years (U = 137.0, W = 308.0, Z = -3.0451, p= <0.05). (Where the two tailed P value was corrected for ties, this corrected value was used as the P value).

Table 2c. Showing the means and ranges for across the gender groups for each construct

	Good at		Hard		Happy		Likes		Naughty	
	means	ranges	means	ranges	means	ranges	means	ranges	means	ranges
Female (n = 33)	2.52	1.67 - 3.0	2.31	1.67 - 2.78	2.47	1.78 - 3.0	2.43	1.78 - 3.0	2.64	1.67 - 3.0
Male (n = 31)	2.45	1.89 - 2.89	2.18	1.78 - 2.78	2.44	1.78 - 2.89	2.40	1.78 - 3.00	2.51	1.67 - 2.78

'3' represents the highest self-perception score and '1' represents the lowest score.

d) School placement differences

Table 2d shows the mean self-perceptions across pupils in special schools for pupils with severe learning difficulties, in special schools for pupils with moderate learning difficulties and in mainstream schools. This table shows that pupils in mainstream schools have higher self-perception scores than pupils in special schools. This indicates that, in comparison with pupils in special schools, mainstream pupils perceive themselves as more good at, happier and liking school situations more, as finding school situations less hard and as being less naughty at school. Furthermore, pupils in schools for pupils with moderate learning difficulties have higher self-perceptions than pupils in schools for severe learning difficulties. This indicates that, in comparison with pupils in schools for pupils with severe learning difficulties, pupils in schools for pupils with moderate learning difficulties perceive themselves as more good at, happier and liking school situations more, as finding school situations less hard and as being less naughty at school.

Kruskal-Wallis H tests were carried out to detect any significant differences between three school placement types and Mann-Whitney-U tests were carried out to detect any

significant differences between special and mainstream schools. No significant

differences were detected.

Table 2d. Showing the means and ranges across the school placement types for each

construct

	Good at		Hard		Happy		Likes		Naughty	
	means	ranges	means	ranges	means	ranges	means	ranges	means	ranges
SLD & MLD Special schools (n = 51)	2.46	1.67 - 3.0	2.24	1.78 - 2.78	2.45	1.78 - 2.89	2.41	1.78 - 3.0	2.57	1.67 - 3.0
SLD Special School (n = 21)	2.42	1.67 - 3.0	2.23	1.78 - 2.78	2.47	1.78 - 2.89	2.39	1.78 - 2.89	2.57	1.67 - 3.0
MLD Special School (n = 30)	2.48	1.89 - 2.89	2.25	1.78 - 2.78	2.43	1.78 - 2.89	2.42	1.78 - 3.0	2.56	1.78 - 3.0
Main-stream School (n = 13)	2.60	2.22 - 3.0	2.29	1.67 - 2.78	2.78	2.11 - 3.0	2.44	2.0 - 3.0	2.63	1.67 - 2.89

'3' represents the highest self-perception score and '1' represents the lowest score

SLD = Severe learning difficulties. MLD = moderate learning difficulties.

Summary

Table 2e is a summary table showing which differences between age, gender and school placement group comparisons across the five constructs reached, and which did not, reach statistical significance.

Table 2e. Summary table showing where the mean scores between age, gender and school placement groups reached statistical significance for each construct

	Good at	Hard	Happy	Likes	Naughty
AGE: 8 - 10 & 11 -13 yrs.	**Sign Diff** (11-13 higher scores than 8-10 yrs.)	No Sign Diff (11-13 higher scores than 8-10 yrs.)	No Sign Diff (11-13 higher scores than 8-10 yrs.)	No Sign Diff (11-13 higher scores than 8-10 yrs.)	No Sign Diff (11-13 higher scores than 8-10 yrs.)
8 - 10 & 14 - 16 yrs.	**Sign Diff** (14-16 higher scores than 8-10 yrs.)	No Sign Diff (14-16 higher scores than 8-10 yrs.)	**Sign Diff** (14-16 higher scores than 8-10 yrs.)	No Sign Diff (14-16 higher scores than 8-10 yrs.)	No Sign Diff (14-16 higher scores than 8-10 yrs.)
11 - 13 & 14 - 16 yrs.	No Sign Diff (14-16 higher scores than 11-13 yrs.)	No Sign Diff (14-16 higher scores than 11-13 yrs.)	No Sign Diff (14-16 higher scores than 11-13 yrs.)	No Sign Diff (14-16 higher scores than 11-13 yrs.)	No Sign Diff (11-13 higher scores than 14-16 yrs.)
GENDER: females & males	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)	No Sign Diff (females higher score than males)
SCHOOL TYPE: Mainstream & Special schools	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)	No Sign Diff (Mainstream higher score than Special Schools)

Sign. Diff. = significant difference

5.6.3 Psychometric properties

a) Reliability

Table 3a shows the reliability coefficients for this study, and the combined reliability
coefficients for first and second grade pupils in Harter and Pike's (1984) study. The
internal reliabilities were measured using Cronbach's Alpha. The table shows that the
reliability coefficients for this study are higher than those reported by Harter and Pike
(1984). Therefore the internal consistency reliabilities for each subscale in this study are
acceptable. For both samples the internal reliabilities were higher in the social and
academic domains, and lower in the physical domain.

Table 3a. Internal consistency reliabilities for each sub-scale for the pupils who
completed the Pictorial Scale in this study and the pupils in Harter and Pike's (1984)
study

	Academic competence	physical competence	Peer acceptance
Pupils aged 9 - 16 combined (N = 87)	0.80	0.72	0.84
First and Second graders combined (N = 109)	0.76	0.62	0.83

Internal consistency of the School-Situations Grid was assessed using Wilcoxon
signed-rank tests to examine differences between constructs. Before reversal of the raw
scores, a significant difference was expected between certain construct pairs (i.e.,
between the positive constructs of *good, happy* and *likes* and the negative constructs of
hard and *naughty*) and no significant difference was expected between other construct
pairs (i.e., between pairs of positive and between pairs of negative constructs).

Expected patterns were found for 9 of the 10 comparisons (see table 3b). An unexpected significant difference was found between the two negative constructs *hard* and *naughty*.

Table 3b. A summary of the expected and actual response patterns between the constructs

Construct Pairs	Expected response pattern	Actual response pattern
Good at and Hard	difference	difference
Good at and Happy	no difference	no difference
Good at and Likes	no difference	no difference
Good at and Naughty	difference	difference
Hard and Happy	difference	difference
Hard and Likes	difference	difference
Hard and Naughty	no difference	difference*
Happy and Likes	no difference	no difference
Happy and Naughty	difference	difference
Likes and Naughty	difference	difference

* denotes when the expected and the actual response pattern are not identical.

b) Intercorrelations within and between the Pictorial Scale of Perceived Competence and Acceptance and School Situations Grid

Table 3c shows Kendall correlation coefficients among the three self-domain means for the two instruments. A significant correlation was found between the two instruments for the academic domain but not for the physical and social domains. There were twelve significant correlations within and between the two instruments. For both instruments, a higher coefficient was found for correlations between the two competence domains than between the competence and acceptance domains.

Table 3c. Correlations between subscale scores for the Pictorial Scale of Perceived

Competence and Acceptance (PSPCA) and the School Situations Grid (SSG)

	Physical PSPCA	Social PSPCA	Academic PSPCA	Physical SSG	Social SSG
Academic SSG	.2553*	. 3257*	**.3402***	.4862*	.3264*
Social SSG	.0363	**.1502**	.1849*	.2046*	
Physical SSG	**.1272**	.2555*	.3022*		
Academic PSPCA	.5844*	.4789*			
Social PSPCA	.4229*				

* p = < 0.05

Figures in bold denote correlation coefficients between the same subscale of the two

instruments.

c) Academic competence subscale

To establish whether academic competence was a single dimension or consisted of two

separate domains (i.e., mathematics and reading), Wilcoxon matched-pairs tests were

carried out to detect any significant differences between the means of the three

academic situations on the Situations Grid (mathematics, reading and writing). No

significant differences were found between the three situations.

   Mann-Whitney-U tests were carried out to detect any significant differences between

female and male pupils across the three situations. No significant differences were

found between female and male pupils for the mathematics situation. A significant

difference was found for the writing situation, with female pupils rating themselves

significantly higher across all 5 constructs combined than did males (U = 10762.5, W =

22852.5, p = <0.05) and for the construct *Hard* (U = 352.5, 848.5, p = 0.05). Female pupils also rated themselves significantly higher than males on the reading situation for the construct *Naughty* (U = 406.5, W = 902.5, p = <0.05).

d) Factor analysis

Table 3d, 3e and 3f present the factor pattern based on a oblique (promax) rotation for the Pictorial scale and the Situations grid. Oblique rotation provides a solution that allows factors to intercorrelate. On the basis of previous findings, Harter and Pike (1984) recommend oblique rotation because moderate and meaningful correlations among self-perceptions are expected in these self-domains. The number of factors retained for the final solution included only those which met Cattell's (1962) Scree test criterion. For clarity In the presentation of the factors, loadings less than 0.5 are omitted.

Table 3d shows the factor pattern for the Pictorial Scale. The typical three-factor solution, defined by academic, physical and social self-domains obtained for the pupils in Harter and Pike's (1984) study was not revealed for pupils with Down Syndrome. Instead a two-factor solution was found including only 11 of the original 18 factors. The first factor was labelled social acceptance, the second was labelled physical competence. The magnitude of the loadings ranged from moderate (0.51) to substantial (0.86).

An examination of the first factor revealed that it was primarily made up of items from the social acceptance subscale. Six of the seven items came from this scale. One item from the academic competence subscale (being good at writing words) was apparently interpreted within this context of social acceptance. The second factor revealed was made up of four items from the physical competence subscale.

The reliability of factors 1 and 2, using alpha statistics to provide an index of Internal consistency, was 0.87 and 0.75, respectively.

Table 3d. Factor pattern obtained for the Pictorial Scale of Perceived Competence and

Acceptance

	Factor 1	Factor 2
ACADEMIC: Good at numbers		
Knows a lot at school		
Can read alone		
Good at writing words	0.54	
Good at spelling		
Good at adding		
PHYSICAL: Good at swinging		0.57
Good at climbing		
Good at bouncing ball		0.86
Good at skipping		0.70
Good at running		
Good at jump rope		0.60
SOCIAL: Has friends to play with	0.80	
Others share their things	0.80	
Has friends to play games with	0.61	
Has friends on playground	0.51	
Gets asked to play by others	0.84	
Others sit next to the pupil	0.72	

Table 2e shows the factor pattern for the school situations on the Situations grid. A 2-factor solution was found including eight of the original nine factors. The first factor was labelled physical competence and the second factor was labelled social acceptance. The magnitude of the loadings ranged from moderate (0.51) to substantial (0.85).

An examination of the first factor revealed it was made up of the three situations from the physical domain and maths from the academic domain. The second factor was made up of the three situations from the social domain along with reading and writing from the academic domain.

The reliability of factors 1 and 2, using alpha statistics to provide an index of internal consistency, was 0.71 and 0.69 respectively.

Table 3e. Factor patter obtained for the school situations on the Situations Grid

	Factor 1	Factor 2
ACADEMIC:		
Mathematics	0.56	
Reading		0.51
Writing		0.78
PHYSICAL:		
Ball games	0.85	
Running	0.78	
Swimming	0.51	
SOCIAL:		
Alone		
With peers		0.66
With teacher		0.74

Table 3f shows the factor pattern for the constructs on the Situations Grid. A three-factor solution was found including 13 of the original 15 factors. The first factor was

labelled positive general competence, the second was labelled negative constructs, and the third was labelled positive social acceptance. The magnitude of the loadings ranged from moderate (0.58) to substantial (0.86).

An examination of the first factor revealed that it was made up of the six positive construct items from the academic and physical competence subscales. The second factor was made up of three *naughty* constructs, one from each subscale, and the *hard* construct from the physical competence subscale. The third factor was made up of the three positive constructs from the social acceptance domain.

The reliability of the factors 1, 2, and 3, using alpha statistics to provide an index of internal consistency, was 0.90, 0.75 and 0.71 respectively.

Table 3f. Factor pattern obtained for the constructs of the Situations Grid

	Factor 1	Factor 2	Factor 3
ACADEMIC:			
Good at	0.84		
Finds hard			
Happy doing	0.75		
Likes doing	0.80		
Naughty when doing		0.79	
PHYSICAL:			
Good at	0.86		
Finds hard		0.58	
Happy doing	0.81		
Likes doing	0.82		
Naughty when doing		0.82	
SOCIAL:			
Good at			0.70
Finds hard			
Happy doing			0.81
Likes doing			0.81
Naughty when doing		0.81	

5.7 Summary

In general, pupils with Down Syndrome between the ages of 8 and 16 years hold a positive view of themselves, their self-perceptions become more positive with age, female pupils have more positive self-perceptions than male pupils and pupils' self-perceptions remain positive regardless of school placement. Pupils with Down

Syndrome differentiate more between competence and acceptance domains, than between academic and physical competence. Furthermore, pupils did not differentiate between the three academic situations (mathematics, reading and writing). Positive and negative constructs were differentiated.

Finally, the Pictorial Scale and Situations Grid provided a reliable assessment of the self-perceptions of pupils with Down Syndrome

CHAPTER 6

SELECTION OF METHODS: STUDY 2

6.1 Introduction

The quantitative data presented in the previous chapter showed that, in general, pupils with Down Syndrome between the ages of 8 and 16 hold a positive view of themselves. However, the data had certain limitations. One of the problems with aggregated quantitative data is that one tends to lose sight of the individual. As such, the quantitative data presented pupils with Down Syndrome as a homogeneous group in terms of their self-perceptions. However, closer inspection of the data revealed that there were pupils with self-perceptions considerably higher and considerably lower than the mean self-perceptions. Therefore, the quantitative data did not do justice to the heterogeneity of the sample. This is a problem when the research participants, like pupils with Down Syndrome, are often regarded in a stereotypical way (discussed in more detail below). Therefore, one reason for adopting a qualitative approach in stage 2 was to reveal the individuality of each pupil.

Furthermore, although the quantitative data revealed high self perceptions, along with certain age, sex and school placement trends, it did not provide an explanation for these findings. It was hoped that a qualitative approach would help answer questions left unanswered by the quantitative data, such as, why particular pupils perceived themselves as they did, why female pupils had higher self-perceptions than males, why self-perceptions rose with age, and why pupils in mainstream schools had higher self-perceptions than pupils in special school.

Before deciding to use qualitative case studies in stage 2 of the research, it was necessary to consider the issues surrounding the use of quantitative and qualitative approaches within the same research. These issues are discussed below, along with the rationale for mixing methods.

Having established the rationale for mixing methods, it was necessary to select the most suitable qualitative methods. The reasons for choosing a qualitative case study approach is discussed below. Finally, the advantages and limitations of using semi-structured interviews and observation to gather case study data are discussed.

6.2 Mixing methods

6.2.1 Qualitative research approach

Before discussing the issues surrounding the mixing of methods, there will be a brief description of the main aspects of the qualitative approach. This is because to make informed decisions about whether, and if so how, approaches can be combined it is necessary to understand the underpinnings of quantitative and qualitative approaches.

According to Denzin and Lincoln (1994), qualitative research is naturalistic and interpretative. Qualitative researchers aim to study phenomena in their natural settings, with minimal alteration to the setting being studied, and to describe and analyse things from the point of view of those being studied. Bryman (1988) also emphasises the naturalistic aspect of the qualitative approach, along with researchers' avoidance of imposing their conceptual schemes on the social world. In order to penetrate participants' frames of reference, qualitative researchers involve themselves with their participants and try to empathise with them.

6.2.2 Mixing debate

According to Bryman (1988), there are essentially two versions (i.e., the epistemological version and the technical version) of the debate over whether approaches can be mixed. The two versions present different opinions on what relationship exists, or at least ought to exist, between epistemological beliefs on one hand and research methods on the other. According to the epistemological version of the debate, quantitative and qualitative research represent different epistemological positions, and these epistemological positions should determine researchers' choice of

methods. Therefore, the epistemological version of the debate emphasises differences between quantitative and qualitative research and rejects the mixing of methods.

Advocates of the epistemological version of the debate argue that all research is guided by a set of ontological beliefs (e.g., What is the nature of reality? How is the social world perceived and understood?) and epistemological beliefs (e.g., What can be known? Who can be the knower? How can knowledge be attained and communicated?) which make demands of researchers (Bryman, 1988). These beliefs restrict researchers in, for example, the questions they can ask, the methods they can use, and the interpretations they can bring to their findings. Therefore, a particular method carries with it a package of views about social reality and how it ought be studied, and different approaches observe and capture different realities or different aspects of reality.

Quantitative and qualitative approaches have been differentiated on a number of criteria. According to positivists an independent, objective reality exists (they work from a realist ontology) which can be revealed by researchers adopting an objective stance, using sensory experience and the methods of natural science (they adopt an objective epistemology). To uncover reality positivists rely on rigorous quantitative methodologies (e.g., experiments and surveys). By contrast, constructivists believe that there are multiple realities (they work from a relativist ontology) based on the way researchers and participants construct understanding (they adopt a subjective epistemology). To uncover reality from the participant's viewpoint, constructivists rely on a naturalistic, qualitative set of methodological procedures (e.g., observation and unstructured interviews).

Different methods are also associated with different views of reality. According to Denzin (1970), for example, researchers using social surveys tend to view social reality as if it were static, invariant, and stable, while researchers using participant observation are more inclined to study processes occurring in social reality. In summary, the epistemological version of the debate argues that quantitative and qualitative approaches cannot be amalgamated because they are associated with antagonistic theoretical perspectives and they conceptualise research problems differently.

However, some researchers, (e.g., Atkinson, Delamont & Hammersley, 1988; Bryman, 1988) have questioned whether the quantitative and qualitative approaches represent distinctive and comprehensive approaches. Atkinson et al. (1988), for example, queried the distinction between the two approaches for a number of reasons, including, the internal disagreement about the main features of each approach, the overlap in the key features of each approach, and the fact that the epistemology and methodology, assumed to be distinctive to each approach, are incomplete and/or vague.

Advocates of the technical version of the mixing debate also reject the assumption that the two research approaches can be distinguished at an epistemological level. Instead, they make the distinction between quantitative and qualitative research at the level of research strategies and data collection procedures. Quantitative and qualitative research are each seen to be appropriate to different but complementary aspects of research problems. Therefore, decisions on which method to adopt are predicated on judgements about the suitability of the methods in relation to the research problems. Bryman (1988), for example, associates quantitative research with studying rates and patterns, and qualitative research with studying processes.

In summary, the technical version of the debate, argues that two approaches can be combined because, in general, they each contribute to different aspects of the same phenomena.

6.2.3 Rationale for mixing methods in this research

There were a number of reasons why I decided to use both quantitative and qualitative approaches in this research. First, although my degree had involved predominately quantitative research, the methods course I attended at the beginning of my PhD course opened my mind to the advantages and weaknesses associated with different research approaches. Instead of relying on the judgements other researchers had made about particular approaches, I wanted to experience each approach and evaluate their utility for myself.

Second, although I adhere to some of the underlying principles of each approach, I do not adhere completely to either approach. I do not adhere completely to the underpinnings of the quantitative approach. This is because I wanted to acknowledge my values and personal experiences and to be reflexive about their potential effect on the research (see Chapter 1). Therefore, I do not believe that it is possible to produce objective, value-free research. I also adhere to the ethical principles of qualitative research. I wanted to try to give the participants a degree of power over the research process and to try to get closer to their view of reality, rather than imposing mine upon them.

Although the above comments suggest my leaning towards a qualitative position, I do not adhere completely to qualitative principles. This is because I wanted to develop hypotheses prior to data collection and to structure the data collection process in order to test these hypotheses. Furthermore, I wanted to produce a piece of research which involved the collection of reliable data from a large sample of pupils. Such an aim is not compatible with qualitative methods.

Instead, I adopted a more relativist position. According to Stake (1995), relativists recognise the experiential and personal determination of knowledge, but they also argue that not all views and interpretations are of equal value, and instead vary in their credibility and/or utility. This position is concordant with the technical version of the debate, in which particular approaches are argued to be more suitable for revealing valid information on particular research areas.

Third, I agree with researchers who advocate combining methods because their arguments appear progressive and commensurate with my beliefs about the aims of research (i.e., to discover as much as possible about a chosen area and to provide explanations). Blumer (1984) and Burgess (1988), for example, argue that researchers ought to be flexible and to select a range of methods that are appropriate to the research problem under investigation. Rather than basing decisions on epistemological issues, Blumer (1984) advocates taking into consideration the strengths and weaknesses of each method and using this information to determine which combination

of strategies will be most adequate and fruitful. According to Denzin and Lincoln's (1994) historical account, in the early 1980's qualitative research had established itself as a research approach and support was growing for its interpretative perspective in contrast to quantitative approaches. During this period, termed the age of "blurred genres" (Denzin & Lincoln, 1994) there were no firm rules on research procedures, standards of evaluation or subject matter. In the absence of a widely adhered to research approach, writers in the early 1980's, like Blumer, were in a position to advocate mixing methods as a means of establishing good research. In the late 1980s Bryman (1988) also advocated fusing approaches in order to benefit from the respective strengths of each approach. According to Denzin and Lincoln (1994), Bryman (1988) would have been writing during the 'Crisis of representation'. During this period, self-reflection became an important part of the research process. Beliefs about the world and how it ought to be studied and understood were seen to be determined by, for example, the researchers' personal biography, gender, age, social class, and ethnicity. Mixing methods would not alter these latter issues because they apply regardless of whether a quantitative or qualitative approach is adopted. Therefore, Bryman (1988) was writing in a period where epistemological issues were only one factor determining researchers' choice of methods.

Finally, for two reasons I was more sympathetic to the technical version of the debate over mixing methods. First, I agree with researchers (e.g., Bryman, 1988) who see the epistemological version of the debate as exaggerating the differences between the quantitative and qualitative approach. Although I recognise there are differences between each approach, both approaches face similar problems. Bryman (1988), for example, listed the common problems faced by researchers of both approaches. A number of these common problems applied to this research. Regardless of whether I adopted a quantitative or qualitative approach, I would face the following four problems: participant reactivity to myself and/or to the research instruments; obtrusiveness because the research would interrupt the natural flow of events in the lives of the participants; the inability to infer behaviour from attitudes (and vice versa) because of

the lack of relationship between behaviour and attitudes; and finally the difficulty of gathering information from pupils with limited language skills.

Second, I believe that different approaches are better suited to answering different research questions. To fulfil my research aims, I felt it necessary to use both approaches. By providing a static view of pupils' self-perceptions, the quantitative data provided an insight into the regularities and patterns across different age, sex and school placement groups. By providing a processual view of pupil's self-perceptions, the qualitative data provided an insight into the variability across pupils in terms of the factors influencing their self-perceptions.

In summary, I decided to mix approaches because I do not agree with all the epistemological issues behind either approach, I had been trained in both approaches, I believe all interpretations are not of equal value and that particular methods provide the most suitable means of accessing particular information.

Specifically, the complementarity approach (as described by Brannen, 1992) was adopted. According to this approach, each research method should be used in relation to different research questions or different aspects of the research question. Therefore, researchers adopt the most appropriate method to answer their research questions and provide the required data. However, the complementarity approach cautions against simply linking findings together unproblematically. When mixing approaches, proponents of the complementarity approach advocate considering the tensions between different theoretical perspectives, and considering the relation between data sets produced by different methods. The different sets of findings from each research approach are not assumed to be consistent. Instead, it is recognised that findings are affected by the method used to collect them and therefore, each set of findings are seen as complementing the other(s). Therefore, using two approaches to triangulate the data provided different but complementary insights into the self-perceptions of pupils with Down Syndrome.

6.2.4 How approaches were mixed

As discussed in Chapter 4, a quantitative survey approach was deemed most suitable
for collecting the self-perceptions of a large, representative sample in study 1. However,
this quantitative data raised a number of research questions which were deemed best
answered by a qualitative approach. Therefore, in stage 2 of the research, I decided to
draw on my understanding of, and training in, qualitative research. The aim being, to
answer the questions raised by stage 1 of the research.

However, the aim was not to integrate the findings from stage 1 and 2 of the research,
nor was it to use the qualitative findings to act as a kind of validity check for the
quantitative findings. Bryman (1988) also argued that it is naive to assume that
combining approaches ensures the validity of data. This is because data can only be
understood in relation to the purposes for which they are created. Therefore, if two sets
of data are collected for different purposes (e.g., testing versus production of theory, or
examining short-term products versus longer-term processes) the data sets can not be
integrated (Brannen, 1992). Furthermore, Brannen (1992) noted that the differences
between data sets are important because they can be as insightful as points of similarity
between data sets.

Therefore, the decision not to integrate the data was based on the differing underlying
principles of the two approaches. Studies 1 and 2 involved different methods, focused
on different aspects of the research problem, had different strengths and weaknesses
and were based on different expectations. Therefore, they were not expected to provide
the same results. Although, I considered these differences important to the
interpretation of the findings, I did not consider them fundamental enough to prevent
using both approaches within the same research. Rather than integration, the findings
from the two approaches were used to complement each other, with the aim of gaining
a more complete and in-depth picture of the self-perceptions of pupils with Down
Syndrome.

6.3 Rationale for qualitative research

6.3.1 Advantages of adopting a qualitative approach in stage 2

First, as mentioned above, one aim of stage 2 of the research was to show that individual lives exist behind the label of Down Syndrome. As Goodley (1996) advocates, research should move away from generalised and pathological models of learning difficulties and on to personalised accounts which recognise the importance of individual differences. Similarly, Troyna (1994) cautions against the reductionist logic in research which binds participants together on the basis of a totalising category (e.g., Down Syndrome), and which leads to all other identities (e.g., age, gender, socio-economic status) being subordinated or ignored. Troyna (1994) argued that research is disempowering if it reproduces the social stereotypes which in the past played a role in disallowing participants access to power. Therefore, by adopting an individualistic approach, study 2 was more likely to provide the information necessary to challenge society's tendency to assume pupils with Down Syndrome are homogeneous. Using qualitative case studies to focus on individual life stories should highlight the heterogeneity of, for example, individual experiences, histories, perceptions, personal strengths and weaknesses. Quantitative approaches are not suited to this aim because such approaches focus on general findings and consistencies across large samples.

Second, Atkinson and Hammersley (1994) argue that quantitative researchers treat social phenomena as more defined and static than they are. Therefore, qualitative research can add to quantitative findings by revealing a more intricate, complex and changeable reality. As such, using the data in a complementary way should provide a deeper insight into the self-perceptions of pupils with Down Syndrome.

Finally, because qualitative approaches are less structured by the researcher, they are argued to accord more respect and power to participants (Mittler, 1991). In contrast to structured surveys where researchers glean information from their participants for their own use, less structured approaches can be more egalitarian. According to Oakley (1981) using semi-structured and unstructured interviews can help mitigate some of the inequality which exists between researchers and the researched, and can avoid

reinforcing the inequality felt by those already exploited. Such interviews can enable researchers and participants to exchange information, and can enable researchers to give something back to the participants, for example, information about their views and experiences. Although Oakley's (1981) comments refer to women as the oppressed group, her arguments can also be applied to other oppressed groups, such as pupils with Down Syndrome.

Although I structured stages 1 and 2 of the research, pupils were given more control over stage 2 of the research. The quantitative approach adopted in stage 1 consisted of a set of pre-determined response categories which prevented pupils from constructing their own responses. By contrast, the semi-structured interviews used in the qualitative case studies contained open questions which gave pupils more opportunity to speak for themselves.

6.4 Stage 2 of research: qualitative approach

6.4.1 Rationale for choosing the case study approach

The case study approach was chosen because it fulfilled many of the above mentioned research aims. First, the case study approach has been advocated as the preferred method for seeking the answers to 'how' and 'why' questions (Schwandt, 1997). Second, case studies provide an opportunity to hear the voices of those who often go unheard (Hammersley, 1998). Case studies should also facilitate the development of more egalitarian relationships between researchers and participants (Vincent & Warren, 1998). Finally, the case study approach can present people as complex creatures, rather than as stereotypes or caricatures (Stake, 1995). However, it was hoped that the case studies would reveal some common factors across pupils of the same age, gender, school placement and self-perceptions. The approach was also chosen to reveal that pupils with Down Syndrome differ from each other as much as, and in similar ways to, pupils without learning difficulties.

There are a number of different types of case study, each of which is deemed suitable to particular research purposes (Macpherson & Brooker, 1998). Those relevant to this

research include, for example, instrumental case studies, which are used to gain an insight into an issue (e.g., the factors affecting the self-perceptions of pupils with Down Syndrome), holistic case studies which are used to gain a deeper analysis of, and reveal the complexity of social life (e.g., reveal the individuality of pupils with Down Syndrome); and purposive case studies which are selected specifically to represent relevant characteristics (e.g., to cover certain age groups, gender, school placement types and self-perceptions).

6.4.2 Rationale for choosing interviews and observation

Semi-structured interviews and observation were chosen to collect data on the case study pupils for a number of reasons. First, these methods appeared suitable for collecting in-depth data. Family life and sensitive issues, such as child rearing-methods, are argued to be more accessible using a more personal approach, like interviewing (Edwards, 1993). By contrast, quantitative approaches, like surveys would not allow pupils, parents and teachers to freely and fully describe their personal experiences.

Second, there are benefits to the relationship that can be established during interviewing. According to Cohen and Manion (1994), for example, the direct interaction that occurs between researchers and participants in the interview situation allows for greater depth and enables researchers to assess the validity of participants' responses (e.g., by monitoring participants' non-verbal signals).

Interviewing also offered an opportunity to share my personal knowledge and experiences with participants. Vincent and Warren (1998) argue that better rapport between researchers and participants is based upon shared experience. I had not shared any experiences with the participants. However, I hoped the commonality in our personal experiences would help put participants at their ease and show them that I could try to understand, and empathise with them. Because I am female and have a sister with severe learning difficulties, I felt able, to an extent, to empathise with the teachers (13 of whom were female) and the parents (especially the mothers) I interviewed. I hoped that this matching, in terms of gender and experiences, would help

increase my chance of developing a less exploitative and less hierarchical relationship with the participants. However, identification can be counterproductive if assumptions are made about what is known and understood between researchers and participants (Vincent & Warren, 1998). To avoid assumptions being made about shared understanding, I requested explicit and detailed responses from participants. Fortunately, complete identification between myself and the participants was unlikely to occur because the parents and teachers were not expected to perceive my experiences, with a sister with severe learning difficulties, as identical to their own.

My personal experiences could not be relied upon to increase the rapport between myself and pupils with Down Syndrome. My rapport with the pupils could be hindered by, for example, my older age, our different experiences, and my not having similar learning difficulties. Due to these differences pupils were likely to feel less powerful in comparison with myself. They were also unlikely to have the opportunity to change the direction of the interview, even if they wanted to, due to, for example, their limited language skills. However, I hoped that my experiences of growing up interacting with children and adolescents with various levels of learning difficulties would help me interact with the pupils.

It was necessary in stage 2 of the research to consider the restrictions, noted in Chapter 4, of carrying out research with pupils with Down Syndrome. In relation to the limited language skills of pupils with Down Syndrome, interviewing is advantageous because the researcher is present to facilitate participants' understanding. During interviews, researchers are able to, for example, repeat, clarify or re-phrase questions if they suspect participants have not understood. Furthermore, when researchers are unsure of the meaning of a participants' response, they can request them to expand on, or clarify their replies. Interviewing is also compatible with the principles of participatory research because it enables participants more freedom in their responses than would be allowed in a survey. Using open-ended questions is also argued to encourage participant co-operation, to help establish rapport between researchers and participants, and to enable researchers to test the limitations of respondents' knowledge (Cohen &

Manion, 1994). A good rapport would be beneficial to this research because it should help put pupils at their ease and should provide me with sufficient insight to avoid asking questions that pupils lack the knowledge to answer.

Finally, semi-structured schedules enable changes and modifications to be made to the interview schedules to accommodate the heterogeneity of the sample. Unfortunately, using a semi-structured, rather than a structured, interview schedule reduces the validity of comparisons made across pupils. However, semi-structured schedules provide more standardisation across case studies than unstructured schedules. Furthermore, flexibility was deemed important for a number of reasons. First, by adopting a flexible approach I expected to be able to alter the schedule to meet the language skills of each pupil and thereby, to access the views of as many pupils as possible. Second, I expected the flexibility to facilitate the flow of the interviews. Third, the flexibility of semi-structured interviews should enable me to follow up interesting issues raised by participants. Finally, using semi-structured schedules meant I had to decide in advance of the data collection on what I hoped to gather information. This forced me to consider potential difficulties, for example, with question wording and sensitive topics. Furthermore, this preparation can facilitate the flow of the interview because it allows researchers to structure the questions and topics into a logical and coherent order.

6.4.3 The potential limitations of interviewing

Although semi-structured interviewing has a number of advantages, it also has limitations. First, Bryman (1988) questions the extent to which interviewing really meets the criteria of ecological validity. Qualitative researchers adhere to the principles of ecological validity because they involve capturing the daily life, values, opinions, and attitudes of participants as expressed in their natural habitat. Bryman (1988) recognises that by interviewing participants, researchers are concerned with participants' subjective experiences, participants are invited to speak at length and participants are allowed more freedom in their responses. Therefore, the interviews employed in stage 2 can be

contrasted with the pre-determined and structured questions used in stage 1. However, the interviews were still obtrusive because they interrupted the natural flow of events for the participants. Pupils, for example, had their lessons interrupted for interviewing. The interviews also focused on questions I deemed important rather than those important to the participant. Therefore, the interviews in study 2 were not ecologically valid. However, interviewing was still seen as an appropriate method. When participants are young and have limited language skills, it is difficult to select a single method that is simple enough to allow all the participants to contribute, while also allowing participants more freedom than would a standardised instrument. Therefore, in stage 2 attempts were made to provide pupils with limited language with an opportunity to talk more freely on topics chosen by the researcher.

Second, the validity of the data derived from interviews and observations can be affected by reactivity (Bryman, 1988). Participants may not answer questions or behave typically if they react to the presence of the researcher. It was hoped that the pupils' familiarity with me would reduce reactivity. Before the interviews and/or observation I visited all the pupils at least twice. However, the teachers and parents were only interviewed once. The reactivity of teachers may have been reduced because of their familiarity with me, through my visits to the case study pupils. Parents' reactivity may have been reduced by our similar experiences of having a close family member with learning difficulties.

In addition to reactivity, I also had to consider a number of other potential problems identified as likely to distort participants' responses. Denzin (1970) refers to potential distortions due to, for example, participants' self-presentation, participants' not feeling committed in a fleeting interview to giving honest responses, participants' reluctance to disclose their private world, the context of the interview (e.g., home or school) and the unequal status between researcher and participant.

Many of the problems that arise during interviews are likely to be reduced by the development of a good rapport between researchers and participants. A number of researchers have offered suggestions to encourage the development of rapport. These

suggestions were taken into consideration when carrying out the interviews. Fielding (1993) advocates the following three approaches. First, researchers should provide a careful initial explanation of the interview so as to avoid biasing participants into giving responses they anticipate the researcher may want to hear. Second, researchers should be relaxed and unselfconscious so as to put participants at ease. Finally, researchers should adopt neither a condescending nor deferential demeanour so as to display interest without appearing intrusive. Fielding (1993) also advocates recording interviews to facilitate the flow and naturalness of the interview. Using tape recorders means researcher do not have to stop the interview to take notes. Tape recordings can also help researchers check their interviews for bias, such as, misdirected prompts and probes, and leading questions. However, researchers should recognise that some participants may refuse to be tape-recorded and the responses of some participants may be affected by the presence of a tape recorder.

Rapport can also be facilitated by adopting the researcher characteristics which are considered to be crucial for successful interviewing. These include, trust, curiosity and naturalness (Cohen & Manion, 1994). Similarly, Bergen (1993) empathises the importance of being a good listener and trying to understand the perspectives of the participants. Feminists advocate self-disclosure and reciprocity to help overcome participants' inhibitions (Bergen, 1993). Sharing information and experiences are also believed to reduce the power imbalance between the researcher and the researched. To help maintain rapport researchers should reassure participants of confidentiality and should avoid questions requiring information that participants may not want to, or may not have the knowledge to give.

The above problems relate to the validity of individual interviews. However, these problems can also affect the validity of comparisons across interviews. A number of features can differ from one interview to the next. Interviews can differ on, for example, the degree of mutual trust, social distance, and researcher control between researchers and participants, the degree participants feel uneasy and adopt avoidance tactics, what participants hold back and the degree to which participants interpret the same questions

differently (Cicourel, 1964). During the research design and data collection, the above suggestions were considered as a means of increasing the validity of interviews.

The validity of the findings drawn from interviews and observations have also been questioned because of the effect of researchers' personal and subjective interpretations. As the human perceptual system is not able to absorb and interpret all that is going on around, researchers have to be selective in their perceptions and interpretations. Therefore, researchers become the arbiters of what is and is not disclosed, and of how such disclosure is presented to readers (Vincent & Warren, 1998). Due to the necessity for selectivity, it is not possible for researchers to provide a value-free report of a participant's world view. As Brannen (1992) explains, even if researchers begin their data collection without any hypotheses, they cannot help but be influenced by prior knowledge of the literature, and lay knowledge, such as common sense, political values or previous research.

This selectivity may lead researchers to exhibit a focus of interest which deviates from the participants' focus of interest (Bryman, 1988). Furthermore, the researcher may not adequately understand and interpret the participants' world views (Bryman, 1988). The deviations between researchers and participants may be based on the tendency for researchers to see participants in their own image, to seek answers that support their preconceived ideas, and to misperceive what participants' say (Cohen & Manion, 1994). Such misunderstandings are expected to be especially prevalent when the participant and researcher differ on certain variables, such as, gender, age, socio-economic status, intelligence, race, religion and life experiences (Cohen & Manion, 1994). It was therefore necessary in stage 2 to acknowledge that I can only present readers with my interpretation of participants' interpretations of their own lives (pupils), their children's lives (parents) or their pupils' lives (teachers).

To increase the validity of their interpretations, researchers can adopt strategies believed to facilitate the presentation of research findings which closely approximate to the views of the participants' (e.g., Bryman, 1988; Stake, 1995; Vincent & Warren, 1998). The following four strategies were adopted in this research.

First, researchers have been encouraged to openly acknowledge their personal values and potential biases (see Chapter 1). Researchers should be aware that they are not always able to recognise all that is important to their participants, due to differences in, for example, age, gender, educational background (Bryman, 1988). Similarly, Stake (1995) encourages researchers to see subjectivity not as a personal failing but as an essential element of understanding.

Second, researchers have advocated the strategy of allowing readers more freedom to draw their own conclusions, either by offering a number of alternative interpretations for given findings or by offering no interpretations. Researchers can also provide readers with sufficient raw data (e.g., participants' quotes) to enable them to draw their own conclusions and/or to check the validity of researchers' interpretations.

Third, internal validity can be checked by examining the consistencies and inconsistencies between the different data collected from different methods and/or sources. Therefore, checks can be made across the different interviews and observations. Triangulation can also help clarify findings and interpretations, or offer alternative explanations. However, it is important to be analytical about any consistencies or inconsistencies that are detected. Consistencies do not automatically mean the data is valid since, for example, all the participants in this study were susceptible to presenting an overly positive picture of the case study pupil. Likewise, inconsistencies do not invalidate the data, since, for example, parents and pupils may view and interpret the same incident differently.

The fourth strategy, involves the use of respondent validation as a method for checking factual information and interpretations. Respondent validation can also help researchers to maintain good relations with participants. Adler and Adler (1993), for example, comment that portrayals that seem neutral to the researcher may appear to the participant as critical or negative. However, due to the reading and comprehension difficulties of the case study pupils, I did not feel they would be able to understand or respond critically to draft reports. Obviously, failing to consult all participants about their views on the research reports goes against the principles of participatory research.

Therefore, it is important to acknowledge that only parents and teachers were given the opportunity to critically appraise the reports.

Finally, in relation to making the research process more egalitarian, it was important to question whether participants gained anything from the research. Participants give their time, attention and information to researchers. Because there are no tangible rewards (e.g., money), Cohen and Manion (1994) suggest that interviews may provide participants with a subjective advantage, such as, being able to interact without meeting contradiction, competition and harassment, or participants may simply enjoy being interviewed. In the description of their research, Vincent and Warren (1998) felt that, at best their research offered a period of undivided interest and attention in what participants had to say. At worst they were asked a series of questions to which they didn't see the point but were at least not overly intrusive. I decided to try to make the research process more egalitarian by treating participants as the experts, thanking them for their help, listening to their views without, for example, interruption, disagreement or condescension, sharing personal information with the participants, and giving parents and teachers a summary of the findings. Furthermore, in an attempt to reduce the inconvenience of the research, participants were interviewed at their chosen place and time.

6.5 Methodological issues: sensitive topics

As the interviews designed for study 2 covered potentially sensitive topics (e.g., child rearing, teaching practices, pupils' strengths and weaknesses), it was necessary to consider the issues relating to interviewing on sensitive topics. Lee and Renzetti (1993) argue that the challenge for researchers investigating sensitive topics is to gain an insight into the way other people are likely to perceive the research and to use this insight to design research which minimises any potential sensitivities.

However, it is difficult to foresee, prior to research, exactly what participants may be sensitive about. Adler and Adler (1993), for example, caution that researchers sometimes reveal hazardous or embarrassing information. In this research parents

and/or teachers may be embarrassed about, for example, the methods they use to deal with pupil's misbehaviour, the mistakes they feel they have made, and so on. Therefore, it was important to scrutinise the topics covered by the interview schedule and the wording of the questions in order to prevent asking any insensitive questions.

In addition to predicting sensitive issues, researchers must also consider how to approach the write up of research on sensitive topics. Adler and Alder (1993) presented a number of useful suggestions for dealing with such findings. These included, self-censorship in which personal or sensitive features are deleted or edited. This approach may also be employed for reasons of loyalty and/or respect for a participant. However, self-censorship is based on researcher's personal opinions and values. Therefore, it may lead to a distorted picture of the findings and/or a failure to delete or edit features considered sensitive by the participants. Alternatively, researchers can discuss editing with the participants. However, this strategy also introduces the problem of whose decision (i.e., the researcher's or the participant's) should be final when disagreements over editing arise. Lee (1993) also cautions against disclosing too little. Lee (1993) advocates making decisions about whether revelations are worth the possible consequences. However, utilising this suggestion is likely to be problematic because any decisions made by researchers are likely to be subjective and context specific.

Before data collection, it is not possible to plan for all the potential difficulties of researching a sensitive topic. However, it was decided, in advance, that pseudonyms would be used to protect the privacy of the participants and editing would be considered during the write up.

6.6 Summary

A qualitative approach was deemed most suitable for study 2 because such an approach aims to collect valid, in-depth information and is sensitive to individual differences. The procedure for study 2 was selected on the basis of the ethical and methodological issues discussed in chapter 4. Furthermore, the issues of validity and

sensitivity when interviewing were taken into consideration. The method and results for study 2 are presented in the next chapter.

CHAPTER 7

METHODS AND RESULTS FOR STUDY 2

7.1 Method

7.1.1 Sample

When deciding on how many case studies to select, researchers need to find a trade-off between depth and breadth (Hammersley, 1998). In general, the less cases, the greater the information that can be collected on each case, and the greater the scope for checking the validity of each description, for example, by triangulation (Hammersley, 1998). However, in this research a specific number of cases (N = 16) were required to fulfil the aim of investigating the affects of the variables: age, gender, school placement and self-perceptions. Sixteen pupils would provide a case within each age group (eight pupils ages 8 - 10 years and eight pupils aged 11 - 16 years), gender (eight female and eight male pupils), school placement type (eight pupils in mainstream and eight pupils in special schools) and self-perceptions (eight pupils with high and eight pupils with low self-perceptions) (see Tables 1 and 2).

To keep the number of case studies manageable, the 11 to 13 and 14 to 16 year age groups were combined to form a single group of 11 to 16 year olds. These age groups were combined because the quantitative data revealed no significant differences between the self-perceptions of these age groups. Only those pupils who had completed both the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981/1984) and the Situations Grid were selected. This meant that their self-perceptions had been more reliably established. Finally, when more than one pupil fitted the criteria, the field notes collected during stage 1 of the research were used to select pupils with whom I felt I had established a good rapport, and whom I felt had the language skills and confidence to comfortably discuss their self-perceptions.

Due to the lack of male pupils with Down Syndrome in mainstream schools in the Midlands, three of the case study cells were empty (Table 1). Only one male pupil aged

8 was found in a mainstream school and he was unable to complete either instrument. The only male pupil with Down Syndrome aged between 11 and 16 in a mainstream school had low self-perceptions. To increase the size of the male sample, two male pupils with Down Syndrome in special schools with low self-perceptions were selected. One pupil was in the same class as the corresponding male pupil with high self-perceptions. This comparison was expected to be informative because comparing pupils with different self-perceptions in the same class should hold constant the potential effect of classroom factors. The final sample size was 14 pupils.

Table 1. Male case study pupils

	SPECIAL SCHOOL		MAINSTREAM SCHOOL	
MALE PUPILS	low self-perceptions	High self-perceptions	low self-perceptions	High self-perceptions
8 - 10 years	ONE	ONE		
11 - 16 years	TWO	ONE	ONE	

Table 2. Female case study pupils

	SPECIAL SCHOOL		MAINSTREAM SCHOOL	
FEMALE PUPILS	low self-perceptions	High self-perceptions	low self-perceptions	High self-perceptions
8 - 10 years	ONE	ONE	ONE	ONE
11 - 16 years	ONE	ONE	ONE	ONE

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7.1.2 Measures

Three semi-structured interview schedules (i.e., for pupils, parents and teachers) and one observation schedule were constructed for the study. The interview schedules (Appendix 7) were the primary means of data collection for the case studies because they were designed to collect information from participants on the areas revealed in the literature to be important to the self-perceptions of children and adolescence. Information was collected on each pupil under six headings. These were educational background, home life, academic competence, physical competence and health, social competence and personality, behaviour and temperament. The schedule began with factual questions, for example, the length of time a teacher had taught the pupil, the number of people living at home with the pupil. These questions were asked to help put participants at their ease and to gain their attention. More personal and potentially sensitive questions were asked later. The headings of academic competence, physical competence and social acceptance were chosen because these were the domains covered by the instruments used to collect the quantitative data. Covering these domains enabled comparisons to be made between the quantitative data (self-perception scores) and the qualitative data (interview and observation data). The headings, of home life, educational background, personality and temperament were chosen because literature (e.g., Burns, 1979; Coopersmith, 1967, Wylie, 1979) suggests they directly or indirectly affect self-perceptions.

In addition to these questions, parents and teachers were asked whether any critical events had pleased or upset themselves or their child over the last year. The rationale for including these questions was to highlight the events that parents and teachers considered salient. The saliency of events is a significant area on which to collect information, because the perceptions of significant others are believed to influence peoples' self-perceptions (e.g., Cooley, 1902; Mead 1934).

Although the interview schedules were quite structured, in terms of the information they requested, considerable flexibility allowed in their administration. I did not necessarily follow the question wording, or question order. I chose to skip seemingly

irrelevant questions (e.g., questions previously answered in the response to earlier questions), to repeat or change questions to facilitate comprehension, and to add further questions in order to expand on, or clarify a response. Probing is considered useful because it helps researchers avoid making assumptions about the meaning of participants' responses (Charmaz, 1995). Therefore, participants were probed to glean more information on a topic and to safeguard against making assumptions about the meaning of their responses. Participants were also allowed to ask me questions.

Finally, certain topics raised during the interviews were pursued with other participants. If, for example, a pupil, mentioned a topic not covered in the interview schedule, questions pertaining to this topic were often added to parental and/or teacher interviews. Such additions were made for a number of reasons, for example, the apparent saliency of the topic to the participant and/or the research, an interest in establishing other participants' views on the topic or the need to clarify a response.

The pupil and parental schedules were given to two parents known to the researcher (one whose 18 year old daughter has Down Syndrome and one whose 28 year old daughter has severe learning difficulties), for their comments. I also discussed the schedules with the parents. All the schedules were read by, commented on, and discussed with, my supervisor. This feedback led to some revision of the questions.

The observations provided supplementary data to the interviews. The observational data was regarded as supplementary because each pupil was observed in a limited number of lessons (two lessons on average) and across a restricted time frame (all observations were carried out during the same day).The 'target child' observation method recommended by Sylva, Roy and Painter (1980), was used. This observation schedule (Appendix 8.1) was adapted from the schedule used by Sylva et al. (1980). A semi-structured observation schedule was required because I did not want to restrict the observational data to a number of pre-determined categories. However, due to the abundance of information available during a period of observation, the schedules were structured in terms of the length of each observation and the general observation categories (i. e., activity record, language record, social code and behaviour code).

The observation schedule covered 10 minutes, and was divided into 1 minute intervals. Notes were taken on what each pupil did (e.g., the activity they were involved in, what materials were used, who else was present) during each minute in the 'Activity' column. Under the 'Language' column, what the pupil said and what other pupils' and/or adults' said. It was not essential to write down the exact wording, as long as the gist of the comments were noted. Abbreviations were placed in the 'Task' and 'Social' columns (Appendix 8.2). These abbreviations were used to aid analysis by summarising the data on which activities pupils participated in and whether, and if so with whom, pupils interacted.

7.1.3 Procedure

Each of the 14 case studies involved semi-structured interviews with pupils, teachers and mothers (on three occasions the father and on two occasions the case study pupil also attended), and two observations of the pupils in two different lessons (giving a total of four observation periods). These two methods were chosen so that the data drawn from one method could provide a form of triangulation for the data drawn from the other. Triangulation was also obtained by gathering information about each pupil from different participants across difference settings and times. The significant others who were interviewed had observed the pupils in different settings and interacting with different people. Parental reports were predominately based on observations of the pupils at home and interacting with their parents, their spouse and their siblings. Teachers' reports were predominately drawn from experiences with the pupil at school, interacting with their teachers and classmates. Pupils were also observed by the researcher in at least two difference lessons.

To gain informed consent for the study, the parents and teachers of the intended case study pupils were contacted via letter (Appendix 6.1), briefly explaining their role and the pupils' role in the case studies. The letter also explained that the information collected on each pupil would be confidential. The aim of this letter was to supply parents and teachers with enough information to make an informed judgement over

whether to consent to the study. None of the parents or teachers refused. The pupils were asked to participate prior to being interviewed.

Before the interview I introduced myself and briefly explained the contents of the interview. Participants were reminded of their right to refuse to respond to any questions or to stop the interview at any time. The participants were also told that they could ask any questions about the interview, the research and/or myself. The participants were asked if they would mind having the interview tape recorded, so as to aid data analysis. Confidentiality was also explained to the participants with assurance of name changes and anonymity. The contents of this introduction was altered to accommodate the expected comprehension level of each participant. Parents and teachers were also informed that they would be sent initial drafts of the findings to read and to comment upon.

During the interview, I adopted a non-judgmental and communicative stance. I talked about my experiences concerning my sister with severe learning difficulties and was willing to answer any research-related or personal questions. This stance was adopted to encourage participants to feel comfortable, to alleviate any fear of being judged and to encourage participants to feel they were the expert helping me, rather than vice versa. In parental and teacher interviews, this stance was facilitated by my being younger than the participants and by my experiences with people with severe learning difficulties. Unfortunately, this stance was more difficult to attain with pupils. I hoped to make the interviews less formal and more egalitarian by showing interest in the pupils, listening carefully to their replies, talking about my own similar experiences and answering the pupils' questions. I also tried to maintain a reflexive stance by remaining aware of the effect I had on the participants being interviewed or observed.

Unfortunately three pupils were not able to complete the interview. For one pupil this appeared to be due to a lack of comprehension. When the questions were simplified and covered specific topics, such as football, the pupil was able to communicate. However, the topics on which this pupil answered questions did not provide the information required for the study. The two remaining pupils had very limited language

skills. They appeared to understand the questions but I was unable to understand a sufficient amount of their responses to provide the information required for the study. Therefore, the information collected on these three pupils relied solely on the responses of their parents and teachers, and the observational data.

The pupils were observed in at least two lessons. Where possible an academic lesson and a physical or social lesson were observed. Two 10 minute periods were observed during each lesson. The first observation was made between 10 and 15 minutes into the lesson. The exact time depended on the length of the lesson and the time pupils took to settle into the lesson. The second observation occurred 10 to 15 minutes before the end of the lesson. I positioned myself out of the direct eye-line of, and some distance from, the case study pupils, but in a position where I had a clear view of them and could hear most of what they were saying. My aim was to be as unintrusive as possible.

The order in which the participants were interviewed and/or observed for each case study varied according to what was convenient for each parent and school. Hopefully, the empowerment of having control over the timing and location of the interview helped parents and teachers acknowledge the value I placed on their participation. Unfortunately, no such freedom was given to the pupils because the teachers and schools controlled the timing and location of pupil interviews. To help compensate for this, as mentioned above, pupils were given control over the level of their participation. Pupils and teachers were interviewed at school in a quiet classroom. Parents were interviewed either at home (n = 13), or their place of work (n = 1), depending on their preference. The pupil interviews lasted between 10 and 25 minutes. The parental and teacher interviews lasted between 1 and 3 hours. The parental interviews tended to last longer than teacher interviews. All the participants consented to their interviews being tape recorded.

7.1.4 Analysis

No formal analysis was carried out during the data collection, although occasional themes and/or ideas that arose during the interviews and observations were recorded.

Each interview was transcribed in full onto a word processor. Transcribing interviews, partly because it is such a timely process, allowed me to immerse myself in, and familiarise myself with, the data.

The interviews were analysed by reading and re-reading each case study (the three interview transcripts and the four observations). A method similar to focused coding was adopted (Charmaz, 1995; Glaser, 1978). Two types of analysis were conducted, analysis between (inter-) and within (intra-) case studies. The main aim of the inter-analysis was to discover regularities across the case studies. It is important to remember that the inter-case analysis rests on the assumption that the quantitative data provided a valid picture of the pupils' self-perceptions. The intra-case analysis sought not only to reveal the complexity and uniqueness of each case, but it also sought to unpack and test this assumption.

Initial coding was guided by the research questions which addressed how and why pupils hold specific self-perceptions. Sometimes the themes emerged directly from the interview questions. The data were analysed under the six headings used in the interview schedule. Under each of these headings, the common themes running through the initial case studies were applied with differing degrees of success to the remaining case studies. As in the grounded approach (Glaser & Strauss, 1968), the aim was to evaluate the fit between the initial research interests and the data, rather than to force preconceived ideas and theories directly on to the data (Charmaz, 1995).

This coding of the data helped to identify the frequency to which certain factors related to self-perceptions and under which conditions certain self-perceptions were prevalent. By finding common themes, the multiple cases provided 'literal replication' (Cohen & Manion, 1994). Literal replication occurs when two or more cases containing the same variables predict the same outcome (i.e., self-perceptions). Literal replication is advantageous because a hypothesis found to fit a good proportion of the cases will give substantial evidence of its acceptability (Cohen & Manion, 1994).

In summary, the qualitative analysis set out to reveal and describe important similarities and differences in the ways pupils perceive themselves.

7.1.5 Validity

According to Cohen And Manion (1994), qualitative researchers are seeking to be more systematic and rigorous in their data collection and analysis. The concepts 'systematic' and 'rigorous' are likely to represent different things for quantitative and qualitative approaches. However, both approaches are likely to benefit from the prestige accorded to methods which meet, to an extent, the traditional definition of systematic research. Lincoln and Guba (1985) proposed four prerequisite criteria necessary for qualitative research to be considered systematic. These four criteria, credibility, transferability, dependability and confirmability, were considered in this research.

To establish the credibility of the research, respondent validation and triangulation techniques were employed. The presentation of text-based data has been used to demonstrate the credibility of data and is a technique for participants' review of the researcher's findings (Lincoln & Guba, 1985). Extended versions of the following case study findings, were sent to participants for validity checks. The aim of this respondent validation was to correct any misinterpretations and/or avoid writing anything likely to upset the participants.

Cohen and Manion (1994) argue that triangulation is an indispensable tool to real world inquiry and especially valuable to qualitative data analysis where there is a concern with the trustworthiness of the data. In order to triangulate the data, the consistency between the interview transcriptions of different participants was examined, along with the consistency between the interview data, the observational data, and the quantitative instruments. Looking for consistency within participant's responses and between different participants' responses, should help identify the problem, highlighted by Cohen and Manion (1994), that participants may wish to present themselves in a misleading or biased manner. Although, participants may be predisposed to confirm an originally biased account, the validity of their responses can be gauged against the perceptions of significant others in their lives and by researcher's observations.

Consistency between the quantitative data and the qualitative data was also checked by two postgraduate students. I did not want to assume that the quantitative data

provided a valid means for categorising pupils into high or low self-perception categories. Therefore, it was necessary to have pupils' self-perceptions assessed on the basis of the qualitative data alone (i.e., without knowledge of the pupils' quantitative scores). The postgraduate students, who were blind to the pupils' scale and grid scores, were asked to randomly select seven of the 14 case studies (including, pupil, parental and teacher interview transcripts and observation schedules) to read. The case studies were numbered between one and 14 to protect the identity of the pupils and to avoid any selection bias (e.g., only choosing pupils of a certain gender to comment upon). The students were then asked to rate each case study pupils' self-perceptions as low, medium or high and to make comments on the reasoning behind their evaluation (Appendix 10). The aim of this consistency check was to assess the consistency between the quantitative and qualitative data.

To ensure transferability, Lincoln and Guba (1985) advocate supplying readers with enough information and 'thick description' to make transferability judgements. Similarly, Fielding (1993) argues that the adept observer is able to provide others with instructions on how to pass in the same setting (Fielding, 1993).Therefore, the aim was to provide readers with adequate information on the procedure and the ages, gender, school types and self-perceptions of the case study pupils. The aim for the two intra-case analyses was to provide readers with sufficient information to transfer the findings of these case studies to other similar personal experiences.

Dependability is akin to reliability, and can be assessed by presenting enough information for readers to critically analyse the research process and to use triangulation to assess the results. Therefore, one aim of the two methods sections (Chapters 5 and 7) was to provide sufficient information to allow for dependability. However, this technique only helps dependability to an extent because the effect of the researcher's presence on the research setting is considered to be as inevitable as it is hard to gauge (Fielding, 1993).

Finally, to ensure confirmability, which is similar to objectivity, researchers must present enough information to allow readers to assess not only the research process, but also to assess whether the findings flow from the data.

In addition to the above mentioned four criteria, numerical data was also used to present a more systemic analysis and to ease interpretation of the data for the reader. Although counting is viewed, by some researchers, as anathema to qualitative research, counting does help to systematise the analysis of the data. Rather than using vague frequency terms, actual numbers can provide readers with more detail and allow them to make their own decisions on whether a given number represents, for example, 'many', 'common', or 'rare'.

7.2 Results

It was hoped that the case study data would provide an insight into factors that affect the self-perceptions of pupils with Down Syndrome. However, it proved difficult to find any themes that ran consistently across the case studies. The case studies revealed that each pupil was unique in terms of the complex and interrelated pattern of factors that contributed to his/her self perceptions.

First, there will be a brief introduction to the two pupils (referred to using the pseudonyms of Lucy and Wendy) whose case studies formed the intra-case analyses.

After this introduction, there will be a discussion of the common findings across the 14 case studies under the headings used in the interviews, along with the additional heading of age. Under each of these headings relevant sections from the two intra-case analyses will be presented. Due to limited space it will not be possible to go into full detail on the interview and observational data for the two intra-case pupils. Instead the focus will be on the differences between the pupils in order to determine what factors, in each case, may explain these pupils' self-perceptions.

7.2.1 Introduction to intra-case study pupils

Lucy: Lucy is 14 years old. She lives in large detached house with her mother, father, grandmother, sister (aged 18) and brother (aged 20) when he is not away at University. Lucy has always attended a mainstream school and has attended her present school since 11 years old.

Lucy was chosen as a case study pupil because she has the highest self-perceptions (see table 3) of the pupils in study 1 who completed both instruments (her reference group of 64 pupils). Lucy's self-perceptions are above average in comparison to her reference group but her competence is below average in comparison to the pupils in her year.

Wendy: Wendy is 10 years old. She lives in a small terraced house with her mother and two brothers aged 12 and 16. Her mother and father are separated. Wendy has attended the same special school for pupils with severe learning difficulties since she joined the nursery at 2 years of age.

Wendy was chosen as a case study pupil because she has one of the lowest self-perceptions (see table 3) of the pupils in study 1 who completed both instruments (her reference group of 64 pupils). Wendy's self-perceptions are below average in comparison to her reference group but her competence is above average in comparison to her classmates.

Table 3. Showing the self-perceptions and teacher perceptions of the two intra-case study pupils

	Pictorial Scale of Perceived Competence and Acceptance (maximum self-domain score of 4)			School-Situations Grid (Maximum self-domain score of 3)		
	Academic (mean self-perceptions = 3.47)	Physical (mean self-perceptions = 3.52)	Social (mean self-perceptions = 3.42)	Academic (mean self-perceptions = 2.46)	Physical (mean self-perceptions = 2.49)	Social (mean self-perceptions = 2.37)
LUCY; Self-perceptions	4	4	4	2.93	2.93	2.93
Mainstream teacher's perceptions	2	2.5	1.83	~	~	~
WENDY; Self-perceptions	3	3.5	2.83	2	2.27	2.27
Special school teacher's perceptions	2.83	3.83	3.67	~	~	~

7.2.2 Personality factors

Inter-case analysis: No personality characteristic was consistently associated with high or low self-perceptions. The majority of the characteristics attributed to pupils with Down Syndrome by teachers and parents were positive. Table 4 shows the most frequently applied characteristics. Slightly more positive characteristics (i.e., sociable, happy, confident and friendly) were applied to pupils with high self-perceptions (19 pupils) then

to pupils with low self-perceptions (15 pupils). Slightly more negative traits (i.e., temper tantrums and stubborn) were applied to pupils with low self-perceptions (seven pupils) than pupils with high self-perceptions (five pupils).

Table 4. Pupil characteristics across sex and age groups (n = 14)

Characteristics	High Self-Perception Scores				Low Self-Perception Scores			
	female; 8 - 10 years.	male; 8 - 10 years.	female; 11 - 16 years.	male; 11 - 16 years.	female; 8 - 10 years.	male; 8 - 10 years.	female; 11 - 16 years.	male; 11 - 16 years.
Sociable (n = 12)	2	1	2	1	1	1	1	3
Happy (n = 8)	1	1	2	1	1	1	1	
Confident (n = 7)		1	2	1			2	1
Friendly (n = 7)	2		1	1	1			2
Stubborn (n = 6)	1	1		1		1	1	1
Temper Tantrums (n = 6)	1	1			1		1	2

7.2.3 School factors

Inter-case analysis: There was little consistency between pupils' self-perceptions, and teachers' perceptions or interview comments. In general teachers felt their pupils were happy and positive about themselves. Only two teachers felt their pupils had low self-perceptions. Both these pupils had low self-perceptions.

In relation to the approaches adopted by schools, none of the following factors were found to be consistently different between pupils with high and low self-perceptions; approaches to streaming, class sizes, number of assistant teachers, whether pupils were taught predominately by one teacher or by different teachers, which teaching methods were most frequently employed, how pupils were given feedback on their performance, when and how pupils were praised for their achievements, teachers' expectations for their pupils' future and whether pupils started school after their

classmates. Therefore, none of these factors appeared to have a primary effect on self-perceptions.

Below are some teacher comments revealing attitudes or practices that may be encouraging and/or beneficial to pupils in terms of their self-perceptions. The first two quotes show teachers with high expectations for their pupils which extend beyond purely academic achievements. The next two quotes relate to teaching style. Rather than streaming, these teachers adopt a more individualised approach within a whole class setting. The final quote relates to giving pupils more responsibility in their learning.

"Now she has started to do that [emergent writing], I mean the sky's the limit really. You can just go on and on. ... But I think important in that is the fact that we boost up her self-esteem cause I think that she feels she can do anything. ... That's what we're all about really, isn't it? Telling them how well they are getting on" [Teacher of two pupils, one with a high and one with low self-perceptions in mainstream school].

"I mean obviously we are a school but we're not concerned purely with academic achievements because if we did then a lot of the children would not get anywhere" [Teacher of a pupil with high self-perceptions in special school].

"We do whole class work or group work ... When you're devising whole class work or group work there is still, within that, that is individualised because you pitch questions to different students' abilities and you expect different levels of work within that group activity" [Teacher of a pupil with low self-perceptions in special school].

"We don't tend to sort of split lessons specifically. Although we try to differentiate the activity for the students so they are all working together in one

group but not necessarily working on the same task" [Teacher of a pupil with high self-perceptions in special school].

"The idea is to encourage maximum choice. ... Very student centred. ... The idea is to transfer as much responsibility back to the students as possible" [Teacher of a pupil with low self-perceptions in special school].

In relation to the differences between mainstream and special schools, it is interesting to note the teacher perceptions in Table 3. Wendy was rated as more competent and accepted by her special school teacher, than was Lucy was by her mainstream teacher. However, as is noted under academic competence, Lucy was one of the most able pupils in study 1 (N = 96). This finding may reflect differences in the ability thresholds used by teachers use in special and mainstream schools. If teachers use, for example, class averages to establish ability thresholds, mainstream teachers are expected to set their thresholds higher than special school teachers.

7.2.4 Academic competence

Inter-case analysis: Academic competence does not appear to be a necessary or sufficient condition for high academic self-perceptions. Pupils rated by teachers as high in academic competence relative to their classmates (six pupils) had both high self-perceptions (four pupils) and low self-perceptions (two pupils). Pupils rated by their teachers as average (three pupils) in competence, relative to their classmates, all had low self-perceptions. Pupils rated by their teachers as low in competence relative to their classmates (five pupils) had both high self-perceptions (four pupils) and low self-perceptions (one pupil).

Lucy and Wendy (described below) provide two examples of pupils whose self-perceptions appeared to contradict the perceptions of their teachers.

Characteristics, such as, being motivated, hard working, liking work, and being able to concentrate, were applied by teachers to pupils with both high and low self-perceptions. Characteristics, such as, being distractible, reluctant to work, using work avoidance strategies and not always putting a lot of effort into working, were also applied by teachers to both pupils with high and low self-perceptions.

Intra-case analysis: Lucy and Wendy were both described as hard-working and as having attentional difficulties. Both had mothers who displayed pride in their daughters' achievements. The factors unique to each case were: for Lucy, the assistance available to her at home and at school and her acceptance of it; and for Wendy, the insecurity she displayed and her resistance against accepting help.

Lucy

Competence: In comparison to her reference group, Lucy rated herself above average for academic competence Lucy attained level 3 in English and Science for her SAT assessments. An example of Lucy's written work is shown in Appendix 2.2. The letter shows that Lucy is able to set out a letter correctly, her writing is legible and her vocabulary is quite comprehensive. The letter also suggests that Lucy had read the letter (shown in Appendix 2.1) sent to her parents. This letter requires considerable reading and comprehension skills. Therefore, Lucy's academic achievements could be seen to justify her positive academic self-perceptions.

However, according to Lucy's teacher, Lucy is in the lowest stream for all her subjects. Her teacher explained, "I think she struggles quite a lot and it's quite difficult for her and she does need quite a lot of support in lessons".

In comparison to her immediate classmates (the pupils in the lowest streams), Lucy's teacher said, "There are difficulties if she's [Lucy's] part of a group of twenty ... with often only one teacher in the class. But that's the same for any of the special needs children". Lucy's teacher also said, "I don't feel that ... she feels she's particularly inferior ... I thinks she's got quite a good self-esteem".

Therefore, Lucy's teacher did not appear to differentiate Lucy from other pupils with special needs or to feel that Lucy felt "particularly inferior" to her classmates. This suggests that Lucy may not differentiate herself from her mainstream peers. However, the perceptions of Lucy's teacher are susceptible to bias. Teachers may, for example, wish to give the impression that a pupil with Down Syndrome is so fully integrated that he/she does not feel different from his/her mainstream peers. In the absence of triangulating evidence, it is important to note that the suggestion that Lucy does not differentiate herself is only based on the perceptions of Lucy's teacher.

Lucy's presence in the lowest streams may help maintain her high self-perceptions. In the lowest streams Lucy is expected to feel positive about herself because she may feel similar to, and therefore not inferior to her classmates who also have special needs. If Lucy was in a higher stream she may suffer from negative self-perceptions because in comparison to her classmates she would be less competent. Furthermore, she would have to cope with the demands of learning more difficult material and at a faster pace.

However, being in the lowest groups may negatively affect Lucy's self-perceptions if there is stigma attached to being in the lower groups and if Lucy is aware of this stigma.

Parental involvement: Lucy had a speech therapist before she was a year old and the nuclear family all attended Makaton workshops when Lucy was born. Lucy's mother also talked about the learning programme Lucy had followed at home before starting school.

In relation to her contact with Lucy's present school, Lucy's mother said, "I think they have probably got fed up with us really". Her mother talked about the help she gave Lucy at home. She said, "If I know what she's going to do beforehand, ... just doing some vocabulary, learning some ideas. ... Sometimes she'll come back with bits unfinished and sometimes we can't work out what it was to start with. ... We went into school and said, ... "Could they not have made a copy for Lucy to bring home?". Lucy's mother also said, "We now have most of the textbooks ... because they don't get given the textbooks to bring home. I don't think we realised exactly how poorly equipped the school was until we had Lucy because with our other two children they just sort of got on

with these things". This latter quote suggests that, in comparison to parents of children without special needs, a lack of resources may be more apparent to, and more of a difficulty for, parents of children with special needs. Lucy's teacher also felt that Lucy got, "a lot of support from her parents".

Lucy's mother questioned the level of support Lucy received at school. She talked about, for example, how a lack of support had prevented Lucy moving up to the middle-group for English. Lucy's mother said, " [the Special Needs Co-ordinator] said it [moving to the middle-group] would be too much for her [Lucy] because she wouldn't be able to put in any support for her into that lesson because of the timetable. Similarly, according to Lucy's mother, Lucy's geography teacher, "said he was sorry she [Lucy] didn't have support in geography. ... He was saying it's a difficult class and he really can't give her the time that he would like to give her".

Therefore, even when parents, like Lucy's, are capable advocates they can not improve their child's school situation when teaching support is not available.

In spite of limited school resources, the involvement of Lucy's parents and support is likely to have benefited Lucy in a number of ways. First, extra tuition and help at home may have directly affected Lucy's academic success by improving her academic skills. Furthermore, the continuous involvement and interest of Lucy's parents in Lucy's school life are likely to have affected, and possibly encouraged, Lucy's feelings about the importance of school.

Help: When asked about her feelings concerning the school staff, Lucy's mother replied, "Most of the staff are absolutely brilliant, they are terrific and ... several of them have a real interest and commitment to Lucy".

Lucy's teacher also commented on the support Lucy received at school. She said that Lucy is, "quite protected ... [at school] ... she has a lot of support in the school. She's got a lot of support from her tutor and from the staff here [the Special Needs Centre]". Therefore, Lucy's teacher appeared to feel that Lucy was well supported at school.

Implications: There are a number of reasons for Lucy to hold high self-perceptions in spite of her relative lack of competence.

First, if Lucy does employ social comparison to form her self-perceptions, such comparisons are unlikely to lower her self-perceptions because she is in the lowest stream.

However, having a comparison group with special needs does not explain why Lucy holds such high self-perceptions. Perhaps the reason for this lies more in the approach of her family and school. It appears that Lucy's parents have always been very involved in Lucy's schooling and very supportive. Such interest, commitment and positive attention are likely to improve Lucy's academic success and also her feelings of self-worth.

It is also likely that the school, and especially the teachers' perceptions of and relationships with Lucy, have affected her self-perceptions.

Wendy

Competence: Wendy rated herself below the sample average for academic competence. However, Wendy's teacher described Wendy as, "one of the most able children in the class. So if we're having a lesson she's often the one that can do it, she's the one that can answer the questions, she's the one that can read and write the most".

Insecurity: Wendy's teacher felt that although Wendy came across as quite a confident child, underneath Wendy was quite insecure. She said, "I think she comes over as being very confident but I'm not sure that she actually is. She won't try anything until she knows she can do it exactly right ... If it doesn't come easily to her then she sometimes gives up a bit. But it's a lot to do with her confidence because she's almost like the leader of the boys [her classmates], because she doesn't want to appear to fail in front of them".

However, there are a number of alternative plausible explanations for Wendy's refusal to take part in certain activities. First, even if insecurity is at the root of Wendy's refusal,

her primary insecurity may not be incompetence. Instead, Wendy may be more insecure about her friendships and may fear rejection by her peers if she fails. This suggestion concurs with the perceptions of Wendy's teacher that Wendy does not want to appear to fail in front of her peers.

Second, rather then insecurity, Wendy may refuse to take part in activities because of, for example, boredom, or disliking the task. When asked what Wendy does when she is experiencing difficulties, Wendy's teacher replied, "She'll say she doesn't want to do it. She's bored with it". Wendy's teacher may interpret this as a signal of Wendy's insecurity and her reluctance to try activities in which she has difficulties. However, Wendy's refusal may simply be because she gets bored unless activities come easily to her.

Finally, Wendy's refusal to partake in particular activities may relate to her tendency to misbehave. Wendy's mother said, "She's wilful.... She is naughty. ... She swears a lot. ... She phones up the police quite a lot. ... It's got to the stage now where they phone me back. ... And I say, "No, it is my daughter. Don't worry we don't need any help".

Wendy's mother did not describe Wendy as insecure. By contrast she talked about a number of situations where Wendy had tried new challenges (e.g., making her first cup of tea) or acted confidently in front of others (e.g., singing karaoke at the Labour club). During my interview with Wendy, she said she goes to the Labour club to, "play pool and sing". Therefore, the perceptions of Wendy's mother that Wendy is confident, and attempts new challenges, conflicts with the perceptions of Wendy's teacher.

However, it is plausible that these different portrayals of Wendy arise because they describe Wendy's behaviour in two different situations (school and home) and come from two different viewpoints (Wendy's teacher and Wendy's mother). Wendy's teacher may interpret Wendy's behaviour as insecure because Wendy may feel more insecure about her capabilities at school. Wendy's teacher also explained that Wendy has quite a lot of responsibility at school. Her teacher said, "I think she's had more responsibility this year because she's one of the most able children in the class". This quote also suggests

that Wendy's teacher holds high expectations for Wendy. If Wendy is aware of her teacher's perceptions, she may feel insecure in school because she wishes to live up to these expectations and therefore, avoids situations in which she is unsure of being successful.

By contrast, Wendy's mother may perceive Wendy as more confident because at home Wendy may feel more confident and under less pressure to succeed. Furthermore, there are no classmates at home, so Wendy does not have to try to maintain her image in front of her peers. Wendy's mother also appeared, at times, to underestimate Wendy's capabilities (described under "Homelife"). If Wendy is aware of this, she may not fear failing in activities at home.

Accepting help: During the practical class that was observed, Wendy would not accept her teacher's help. Wendy said, for example, "I can do it", "I'll do it", "I'll hold it". The teacher repeatedly told Wendy what she was doing wrong, but Wendy continued doing the task her own incorrect way. This observational data gives the impression that Wendy finds it difficult to accept help or listen to other's guidance.

Wendy's teacher talked about the problems of underestimating Wendy's ability. She said, "She needs adults who understand her really and understand her abilities because if ... you underestimate Wendy I think that's when there can be problems because she can be trying to do something that she knows she can do and if somebody else might come along and say ..."Why is this child doing such and such?" and say, ... "Stop it, that's dangerous" or whatever. Whereas she knows she can do it".

If Wendy does have problems accepting help and having her ability underestimated, there are at least two explanations for these characteristics. First, they may fit the view of Wendy's teacher that Wendy is insecure. According to this suggestion, Wendy may try to cover up her suspected lack of competence by refusing to take part in difficult activities so as to avoid failure, refusing help as if she doesn't need any help and reacting against any underestimation of her ability. Therefore, these behaviours may be self-protective strategies to help Wendy maintain her confident image. Alternatively,

Wendy may actually feel as confident as she appears to others. Her refusal to accept help and her teacher's perception of her dislike of being underestimated may reflect Wendy's confidence in her abilities. However, this latter interpretation does not explain Wendy's low self-perceptions.

Implications: It is difficult to account for Wendy's low self-perceptions for academic competence, because Wendy is perceived by her teacher and mother as the most able of her class.

Wendy's self-perceptions would be expected to be low if she compared herself with more able peers, such as, her brothers, her brothers' friends, her neighbours and family friends. However, Wendy's peers outside of school are all either older or younger then Wendy. This age gap is expected to make comparisons difficult and/or inappropriate. Therefore, it is likely that Wendy uses her classmates as a comparison group to assess her competence and acceptance.

However, it is possible that due to limitations in Wendy's cognitive capacity, she may not be able to, or want to, use social comparisons to form her self-perceptions. Instead, she may base her self-perceptions on, for example, high self-standards that she has little chance of attaining. Alternatively, Wendy may base her self-perceptions on what she feels her classmates and teachers expect of her. Perhaps, she sets her standards high because she is often the most successful in her class and feels that people expect this of her.

Finally, Wendy's low academic self-perceptions may be rooted in generally low self-perceptions caused by other factors, such as her parents' separation [discussed under "home life"].

7.2.5 Physical competence

Inter-case analysis: Physical competence was neither a necessary nor a sufficient condition for high self-perceptions. Pupils rated by their teachers as average or above average in physical competent relative to their classmates had both high self-

perceptions (five pupils) and low self-perceptions (six pupils). Pupils rated by their teachers as below average in physical competence relative to their classmates (three pupils) had both high self-perceptions (two pupils) and low self-perceptions (one pupil).

As with academic competence, pupils' physical self-perceptions do not appear to be based on their relative competence. Pupils with low physical self-perceptions were perceived as competent. For example, a teacher of a female pupil with low self-perceptions, said she is, "Excellent at sports. Can wang a ball fifty yards accurately, no problem. Nobody else at school can do that".

Intra-case analysis:

Lucy

Competence: Lucy, who has high self perceptions, provides an example of the opposite contradiction existing between pupils and teachers. In comparison with her reference group, Lucy rated herself above average for physical competence. However, Lucy's teacher felt that Lucy did have physical difficulties. She said, "She's quite good at gymnastics ... She finds hand-eye co-ordination things quite difficult to do but she enjoys PE and she enjoys the activity. But, you know, she is at the bottom really in terms of competence".

Lucy's physical difficulties with high jump were observed during her PE lesson. Forty-six girls were individually attempting to jump a high jump pole that was successively raised. Lucy had three attempts at the first height. She attempted to jump over the pole hands and head first but each time she failed to clear the pole. One other girl also failed the first level.

Accepting limitations: When asked why she felt Lucy had high self-perceptions of her physical competence in spite of her physical difficulties, Lucy's teacher said, "She is quite a confident girl a lot of the time in what she can do. ... She doesn't seem to be worried by the fact that she can't do some things ... Doesn't bother her an awful lot. It didn't bother her she couldn't get over the high jump". Therefore, Lucy's teacher felt that

Lucy accepted her limitations. The observations of Lucy after she failed to complete the first high jump pole also supported this idea because Lucy did not appear to be adversely affected by her failure to jump the high-jump pole. Lucy appeared quite happy to hold the high jump pole and chatted and laughed with the head of year and cheered other girls.

If Lucy's teacher is correct about Lucy accepting her physical limitations, this acceptance may relate to the attempts of Lucy's parents to make Lucy aware of her limitations and to accept them (discussed under "home life"). Lucy may not use social comparisons because her parents have brought her up to believe that every individual has his/her own limitations. Instead, Lucy may use a more individualistic base to form her self-perceptions, such as her previous success. Alternatively, Lucy may not have developed the capacity to make social comparisons. However, Lucy is 14 years old, and the level of her cognitive skills suggests that she would be able to make such comparisons.

Lucy's high self-perceptions for physical competence may also relate to the fact that she is not the only pupil who experiences difficulties in PE. Lucy's teacher said, "There are a few people that I would put at the same level of competence as Lucy". Being with pupils of a similar ability may allow Lucy to make selective comparisons that protect her positive self-perceptions.

When asked why she felt Lucy did not appear to be upset after failing at a physical activity, Lucy's teacher replied that she felt this related to the school's attitude. She said, "It's our attitude as well, you know, that it doesn't seem to bother her at all and if I feel that she's not making an effort then I tell her off and she responds well to that. ... You mustn't be too lenient with her because she's capable of quite a lot and understands quite clearly what's expected of her. And although her ability isn't high, she should be treated as anyone else is. ... I mean we're a little bit lenient cause we were lowering the things [high jump pole] so that she has a little bit of success and we could adapt certain things, and the others in the group are quite good. But I don't think it bothers her too much. I think she's quite happy to take part at her own level".

Once again this gives the impression that Lucy is in many ways treated as any other pupil in the school. The teachers hold similar expectations of Lucy's behaviour and the effort she applies, as they hold for other pupils. This attitude is likely to make Lucy feel part of the school. Furthermore, adapting things to allow Lucy some level of success should enable Lucy to incorporate successful physical experiences into her self-perceptions.

Finally, Lucy's high self-perceptions of physical competence may be due to a lack awareness of her physical limitations. This idea was suggested by Lucy's mother, when she talked about the reasons for Lucy's self-perceptions of competence and acceptance. She said, "A lot of that may be about her not having an insight into, you know, her difficulties".

7.2.6 Social acceptance

Inter-case analysis: Social competence in terms of proficient communication skills appears to be a necessary but not sufficient condition for high social acceptance self-perceptions. Four case study pupils appeared to have quite severe difficulties communicating because of their limited language skills. All four pupils had low self-perceptions. Teacher comments about two of these pupils are as follows;

"Sometimes his articulation is poor and you can't understand what he's saying... It's frustrating for him because we don't understand what he's saying".

"He has difficulties communicating. He has limited language. His language is single words and he is often frustrated by his lack of language when he is trying to explain something".

There were six cases where parents and/or teachers were aware of case study pupils being bullied. Three of these pupils had high (one of whom was Lucy), and three had low self-perceptions (one of whom was Wendy). Perhaps it is not bullying per se that

affects self-perceptions, but rather how the bullying is handled. Two pupils with high self-perceptions tended to "fight back" against bullies. One pupil's mother explained her daughter's reactions, "[They] were taking the mickey out of her cause she couldn't ride a bike. It did her a favour in one way because she was determined then that she was going to try and learn to ride a bike ... If someone's giving her a good hiding or somebody's picking on her she'll go back at them".

The third pupil with high self-perceptions was Lucy. Lucy's mother spoke about how she tried to help Lucy deal with other people calling her names. She said, "We tried to help her see that people who make fun of folks who have difficulties, who are different in any way, because they are black or because they have spectacles ... because they've got learning difficulties, well actually they're the people to feel sorry for. They are very sad inadequate people who are unable to understand that we're all different". Therefore, in addition to offering Lucy support, her mother communicates to Lucy that the bully is the person with the problem because he/she cannot accept that everyone has their own limitations.

One parent whose daughter had low self-perceptions explained her daughter's reactions to being bullied and the school's response. She said that her daughter, "got very uptight about this boy. I mean I did speak to the school and ... they've been tremendous and they've sorted it all out". According to his teacher, the male pupil who experienced bullying and had low self-perceptions tended to turn a blind eye to it. The teacher said, "He turned the cheek really. He didn't take much notice, I don't think".

Having a temper and being aggressive towards others appeared to be associated with low self-perceptions. Three pupils (one of whom was Wendy) were described as aggressive towards their peers. All three pupils had low self-perceptions. The comments made on these pupils are as follows;

"She had a lot of social problems. ... Like pulling children's and adults' hair, swearing that sort of thing" [Teacher].

"[His] behaviour does bother me because ... he has started kicking a lot and pushing. It's not nastiness. He thinks it's funny" [Mother].

Finally, having a sociable personality was not sufficient for high self-perceptions. Pupils rated by their teachers and/or parents as sociable (12 pupils) had high social self-perception scores (six pupils) and low social self-perception scores (six pupils).

Intra-case analysis:

<u>*Wendy*</u>

Competence: Wendy rated herself as below the sample average for social acceptance. However, Wendy talked about her boyfriend and her other school friends. In response to the question of whether Wendy had many friends at school, her teacher replied, "Yes, yes loads". Wendy's mother said, "She's got a few friends at school ... She's always on about her school friends". Wendy's mother was not asked on what she based her perceptions of the number of Wendy's school friends. Therefore, it is not possible to determine whether Wendy's mother based her opinions purely on her experience that Wendy was, "always on about her school friends" or on additional information, such as, comments from Wendy's teacher or other parents.

However, when asked whether Wendy had many friends outside of school, Wendy's mother said, "She doesn't really have a lot of friends other than her school friends". However, Wendy perceived the situation differently. When asked about her friends at home, Wendy gave a list of names including her brother, her brother's friend, Sam, and her mother's adult friends. The differing opinions of Wendy and her mother about Wendy's friends may be based in their different interpretations of what constitutes a "friend". Wendy appeared to have quite a broad interpretation of friend which included her brother, a 15 month old baby (Sam), and the friends of her brother and mother. It is questionable whether her mother would have also categorised these people as Lucy's friends. However, it is Wendy's interpretation of her relationship with these people that is likely to affect her self-perceptions. Therefore, Wendy's low social self-perceptions do

not appear to be rooted in a lack of friendships, because Wendy perceived herself as having friends.

Antisocial behaviour: Wendy's teacher did show some concern about Wendy's tendency to lose her temper with people. She said, "At the moment she does let fly with her temper occasionally and that does let her down because once she's sort of lost her temper there's no going back on it and she'll end up hitting somebody or being quite nasty to them". Wendy's teacher did add that when fights had occurred they were not all Wendy's fault. She explained that it is, "nearly always six of one and half a dozen of the other".

When asked what caused Wendy to lose her temper, her teacher replied, "It can be nothing sometimes ... Sometimes if she's been asked to wait for something or somebody's said, ... "Stop doing this" or "Can you do this?" and she just doesn't feel like doing it".

In answer to the question, "What incidents have worried or upset you over the school year?", Wendy's teacher and mother both spoke about the "problems" that had occurred with Wendy during lunch breaks. Wendy's teacher said, "It's mainly at dinner times. We did have a few problems, not just with Wendy but with others. They were sort of fighting a lot with each other and then the dinner ladies were intervening and they were being very rude to the dinner ladies and quite a lot of swearing and that sort of thing going on".

It is not clear how severe these lunch time "problems" were. When asked directly, "What problems have there been?", Wendy's teacher replied, "With using bad language with the dinner ladies". However, her teacher said later in the interview that, "All the time she's [Wendy's] been at school she's been friends with the same group of boys because she's the only girl of that ability in the class. And she gets into these rough games with them and I think the dinner ladies think it's all right for boys to fight but it's not all right for girls to fight and that's sometimes why she gets into such a lot of trouble".

This quote suggests that Wendy's misbehaviour may have been exaggerated because it went against the dinner ladies' views about stereotypical female behaviour. Unfortunately no gender comparisons can be made because no information was given about the reactions to the boys' involvement in the incidents at lunch time.

However, it does seem possible to conclude from the comments of Wendy's teacher and her mother, that under some circumstances Wendy has a tendency to swear, to be rude to her peers and adults, and sometimes to be aggressive towards her peers.

It is difficult to ascertain why Wendy sometimes acted aggressively or in an anti-social way. When talking about the initial rudeness and naughty behaviour Wendy exhibited on starting at the mainstream school, Wendy's teacher said, "I think it was her insecurity. She would be silly, naughty, rude, that sort of thing to get attention. But once she realised that by being friends with people she could get attention then she settled in and she's worked well".

Insecurity is not the only plausible reason for Wendy's behaviour. For example, Wendy's initial misbehaviour at mainstream school could have reflected a dislike of new situations or a disruption to her normal routine, feeling uncomfortable with strangers, or Wendy may have been testing out the situation to see what behaviours would and would not be tolerated.

Wendy's mother felt that Wendy's behaviour at lunch time was related to the disruption caused by the split between herself and Wendy's father. She said, "She [Wendy] has been a bit naughty at school. ... She, em, causes little problems at lunch times. ... But I think it's just, em, cause of her dad being away ... the older lad [Wendy's 16 year old brother], he was a bit difficult ... It rubbed off on the whole family basically... It's took us a while to em, settle down but we have done it now".

Implications: The descriptions of Wendy, such as "leader", and "runs the show", connote someone who is self-assured and confident. Characteristics such as "wants to please", "sociable", and "friendly" suggest someone who gets along with others. These positive perceptions of Wendy are difficult to reconcile with her low self-perceptions. However,

as mentioned above, these characteristics may reflect Wendy's ability to act as if she were socially confident and to cover up any feelings of insecurity about her abilities and her social acceptance. Furthermore, Wendy may not perceive herself as socially accepted because her tendency to lose her temper with others may have lowered her social self-perceptions.

7.2.7 Home life

Inter-case analysis: A loving and accepting home atmosphere appears to be a necessary but not a sufficient condition for high self-perceptions. The mother of one pupil with low self-perceptions was described by the pupil's teacher as unloving and non-accepting. The teacher said, for example, that she felt the pupil had, "been an unloved child ... really treated rather ... rather unkindly ... She's been kept at arms length". The pupil's mother also appeared quite remote in the parental interview. When asked about whether she felt her daughter had been bullied, for example, she replied, "I would imagine that she probably has but what you don't know you don't worry about". However, other pupils with low self-perceptions had parents who appeared to be, and were described by teachers, as loving and accepting of their children. A teacher of a pupil with low self-perceptions, for example, described the pupil's parents as "very very caring parents ... they have loved her to bits".

All seven pupils with low self-perceptions had parents who appeared very protective and/or restrictive. Some parents were described by teachers as very protective; for example, one teacher said, "He is a pretty boy and very molly-coddled, which may explain why he has regressed to incontinence and nappies".

All seven pupils with low self-perceptions had parents who talked about how they restricted the case study pupils in different ways to their children without Down Syndrome. One mother, for example, talked about how she treated her 16 year old son in comparison to his older sister who does not have Down Syndrome. She said, "He does not have his own door key. He's not left alone. There's a much greater degree of supervision". Another mother talked about her 10 year old son in comparison to his 6

year old brother who does not have Down Syndrome, "His brother is 6 and he wants to go fishing with his dad. Well that's OK ... But it's dangerous for [case study pupil] by the river. ... His Nan said to me ... "That's not fair for [case study pupil], he's stuck at home while [his brother] is off fishing". But what do you do?".

By contrast, six of the seven parents of pupils with high self-perceptions appeared to allow their children more freedom. For example, one mother explained that she and her husband, "did try to make [their 16 year old daughter] outgoing right from the beginning and as independent as possible". Another parent described the difficulties she experienced allowing her 10 year old daughter to have freedom. She said, "She's got to go out into that big wide world. It would have been lovely to have been able to keep her at about a 3 year old, where you can still protect her ... You just can't do that anymore and you've got to let her go at some time and it's not easy. ... It's a big bad cruel world, isn't it?".

The parents of two pupils (one of whom was Lucy) with high self-perceptions were very open with their daughters about their limitations. When discussing her daughter's aspirations, for example, one mother said, "We had all the usual, "I want to be a nurse, a teacher, a policeman, a fireman". All the rest of the things and I've always said to her "No you can't. You won't be clever enough. You won't have the exams. You can't do that", you know, "Come down".

The parents of two pupils (one of whom was Lucy) with high self-perceptions were very involved in their daughters' education. These parents began stimulation programmes when their daughters were young, and acted as advocates to ensure their daughters' educational opportunities. Both pupils were in mainstream schools. The parents of one pupil had begun what they described as a rigorous and demanding program of mainly physical exercises with some mental stimulation when their daughter was 10 months old. The pupil's mother said, "We didn't know whether it would help or not but at least it was something positive we could do". Both parents felt this programme had helped to build their daughter's, "stamina". Her mother felt it was the reason "why she's so good physically". The parents also had a long battle to get their

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daughter enrolled in the local mainstream school and initially paid £150 a week to cover the costs of a full-time assistant teacher.

Factors, such as, parental pride, numerous outside school activities, parental separation, close relationships with the extended family, close sibling relationships, or being an only child were associated with high and low self-perceptions. Therefore, none of these factors appear to have a primary effect on self-perceptions.

Intra-case analysis: Lucy and Wendy had parents who appeared to be loving and both pupils appeared to have close relationships with their siblings. The main factors unique to each case were; for Lucy, her mother's openness, and for Wendy, her parent's separation and her mother's approach to raising Wendy.

Lucy

Mother's openness: Lucy's mother had responded to Lucy's desire to be a hairdresser by saying to Lucy, " 'Come on Lucy you know how hopeless I am with hair and quite frankly you and your scissors, your cutting out's ... just about on par with mine'. And I say, 'Nobody's ever going to let you anywhere near their hair with a pair of scissors and nobody's going to let me anywhere near their hair with a pair of scissors if they've got any sense' ".

Lucy's mother had obviously taken the time to discuss the problems with Lucy's career choice and to acknowledge Lucy's limitations. Lucy's mother talked about the specific qualities required to become a hairdresser, and pointed out that Lucy could not use scissors adequately. This approach de-emphasises Lucy's learning difficulties and instead focuses on the specific qualities anyone would need to be a hairdresser. Therefore, Lucy would not be expected to feel completely incompetent after this discussion with her mother.

In addition to acknowledging Lucy's limitations, Lucy's mother also emphasised to Lucy that everyone has limitations. She said, "We've tried to give her an understanding that everybody has some form of handicap. Hers happens to be Down Syndrome. My

son is extremely short-sighted ... And we make a real thing about, you know, pointing out that everybody has something they can't do".

Implications: It is likely that much of Lucy's self-esteem is grounded in her parents' approach to child rearing. Lucy's parents appear to love Lucy, to show pride in her achievements, to have encouraged her to hold realistic expectations and to have spoken a lot with her school.

Wendy

Separation: Wendy's parents separated in August 1996. Wendy's mother and teacher spoke about the separation in reply to the question, "What incident has worried or upset Wendy during the year?".

It is difficult to decipher the short and long-term effects of the separation on Wendy as she was not asked directly how she felt about the divorce. Wendy's teacher talked about her perception of the effects of the separation. She said, "There's been some tension at home because mum and dad split up. ... and both mum and dad are now going steady with other partners. But I think, Wendy she wants to be friends with everybody and that doesn't always work because they're not always the friends within the family. So she's sort of stuck in the middle between four people that she wants to please". Wendy's teacher was not asked on what information she had based her perceptions. It is not clear, for example, whether her perceptions were based on information she had received from Wendy, from Wendy's mother or from her own beliefs about the likely effects of a separation on a family. Without any triangulating evidence it is not possible to ascertain the accuracy of the perceptions of Wendy's teacher.

Differential treatment: Wendy's mother said, "She's [Wendy's] just been treated exactly the same" as her two brothers. However, other comments, made during the interview suggest that she treated Wendy differently from her brothers.

Wendy's mother altered her language and tone when she spoke to Wendy, for example, she said, "Bad girl sometimes she is. Naughty girl at lunch times". Wendy's mother appeared to interact differently with Wendy than with her 12 year old son. In the following example, Wendy's mother replied to Wendy's question and then asked her brother to get an ashtray. She said, "No, at school darling [said to Wendy]. Can you get me an ashtray [said to 12 year old son]?. Thank you". In comparison to her language towards Wendy, Wendy's mother did not use any terms of endearments, such as "darling", when talking to her son and also asked her son to get the ashtray, rather than Wendy, whom she was talking to.

Wendy's mother also talked about Wendy's first attempt to make a cup of tea. She said, "I nearly died. ... I came out of the shower and when I came down she said, "I've made tea mummy" and she had. I was quite surprised and I was looking at her thinking are there any scald marks anywhere? Is she all right?". These comments suggest that Wendy's mother underestimates Wendy's capabilities because she did not feel Wendy was capable of making a cup of tea.

The tea-making episode, the terms of endearment and language used by Wendy's mother in conversation with Wendy, are two examples which suggest that Wendy's mother may underestimate Wendy's abilities and may treat Wendy as if she were younger than 10 years old.

Observations of Wendy's behaviour during the interview revealed that when Wendy interrupted her mother, her mother stopped talking to me and answered Wendy. Towards the end of the interview, Wendy kept repeating that she wanted to go for a walk. Wendy's mother said, "She'll keep on repeating the same thing. ... It will continue all the time until she's there". When asked how she coped with this repetitious questioning, Wendy's mother replied, "Basically I just keep answering the question, which I probably shouldn't do." Wendy's mother therefore seemed to be quite permissive of Wendy's behaviour. However, Wendy's mother did talk about punishing Wendy when Wendy kept phoning the police. She said, Wendy's, "been told off about that. [Turns to Wendy] You were grounded for three days, weren't you? ... No, not on

your birthday you weren't grounded, no you went out". This final comment shows that this punishment was not enforced.

Wendy's mother may be protective and permissive of Wendy because of, for example, Wendy's age, sex and her learning difficulties. Whatever the reasons, if Wendy is aware of any differential treatment her self-perceptions may be affected. Furthermore, as Wendy is the youngest she is unlikely to have seen, or to recall, how her elder brothers were treated at her age. Without this insight, Wendy is expected to explain any differential treatment she perceives in terms of factors other then her age, for example, differences in personality, sex, learning difficulties. Such explanations are more likely to affect a person's self-perceptions because they relate to stable personal qualities, rather than changing characteristics, such as, age. If Wendy perceives herself as being more restricted and protected then her brothers she could interpret this to mean a number of things, for example, that she is more loved then her brothers or that her mother perceives her as less mature and capable than her brothers.

It is possible that Wendy's mother is very protective of all her children and treats them permissively and as younger than their years. Regardless of how Wendy's siblings are treated, if Wendy is treated protectively, this may have implications for her self-perceptions. Treating children age-appropriately is likely to help them adapt to other environments where they are treated according to their age. As mentioned above, being treated protectively at home may make it difficult for Wendy to feel confident at school where the expectations placed on her are more demanding.

Implications: There are two aspects of Wendy's home life that may help explain her low self-perceptions. The first is the impression that Wendy may be more cosseted then her brothers, treated as younger than her years and underestimated in her abilities. These factors could cause Wendy to have low expectations about her competence.

The second plausible reason for Wendy's low self-perceptions is her parents' separation. However, this suggestion is only tentative because the case study only gives a snapshot of Wendy's life. To ascertain the effects of the separation on Wendy's

self-perceptions it would be necessary to collect information on Wendy's self-perceptions prior to the separation and to assess Wendy's self-perceptions in the future.

However, even if these two aspects of Wendy's home life have affected her self-perceptions, they may not have effected the school-related self-perceptions assessed in this study. Furthermore, as suggested above, Wendy's school-related self-perceptions may be lower then her perceptions of herself at home. If Wendy's general sense of self-worth or her feelings of maternal acceptance had been assessed these may have been higher.

7.2.8 Health

Inter-case analysis: Six pupils with high and six pupils with low self-perceptions had visual impairments. One pupil with high and two pupils with low self-perceptions had hearing problems. Two pupils with high and two pupils with low self-perceptions had heart defects. Therefore, none of these three health or sensory factors were consistently associated with either high or low self-perceptions.

7.2.9 Age

Inter-case analysis: Three parents explained the problems their children presented in terms of the "teenage" years and/or the effects of puberty and hormones. Two of these pupils were male and had low self-perceptions; one pupil was female and had high self-perceptions. The mother of one of the male pupils said, "We're going through the teenage years so it's slamming doors". The parent of the other male pupil talked about her son's "stubbornness and the, "I'm 16 and I'm not going to do what you want me to do". The mother of the female pupil with high self-perceptions, said, "I suppose it's the teenage years ... I mean she turns around and says, "No" and she tells me what to do and I tell her, "It's time for bed" and, "No it's not"".

The problems associated with the teenage years seemed to relate to pupils disliking being controlled by their parents. This may have been compounded for some of the older pupils who showed awareness of their differences. One mother of a pupil with low

self-perceptions said, "I think he's very confused at the moment. He's got all the problems of puberty on top of, you know, an increasing awareness that he can't do the things his brother and sister do. That he is being left out of quite a lot of things. For example, we had a lot about "Why can't I drive a car?" I think he's becoming increasingly aware of his difference and I suppose it's not surprising that he's being pretty horrible at the moment, you know. He's got a lot of things to cope with at once. It's a difficult age". When this pupil's mainstream teacher was asked how he felt the case study pupil felt about himself and his level of self esteem, the teacher replied, "In years seven, eight, nine and ten, very good. But by year eleven he was becoming aware of himself and who he was and I think sometimes it made him think long and hard. ... The irritations of what he could go on to. He was seeing ... other people going onto college, people with girlfriends, their social life and [he] was, is, is different and I think he was starting to be able to compare a bit more and that gave him a greater understanding of himself".

Seven parents felt their children were aware of differences between themselves and others and had some understanding, albeit a limited one, of the concept of Down Syndrome. A selection of the comments about pupils' awareness are as follows;

"Her response to you, to you wanting to do research was, ... "I'll tell ... I like having Down Syndrome. I'll tell her it's special". There are times when she doesn't like having Down Syndrome and she's said that, and that's when someone's been unkind to her. But I think she has a very positive self-esteem. A lot of that may be about not having an insight into her difficulties" [Lucy].

"I don't think she really understands what's wrong with her. She knows that she's different and she knows that she has Down Syndrome but she doesn't understand what that means. ... She knows that she takes longer to learn things to [her sister] cause she says to her "You have to help me cause I can't do it". ... It doesn't

seem to worry her" [Mother of a daughter (aged 11) with low self-perception scores].

"I don't know if he understands the concept of having Downs, but if he sees another person with the same condition he realises. So he is aware that there is a difference. But I don't think it bothers him" [Mother of a son (aged 16) with low self-perception scores].

Awareness of being different did not appear to have a primary impact on self-perceptions because, of these seven pupils, four pupils had high self-perceptions and three had low self-perceptions. Furthermore, a lack of awareness did not appear sufficient to protect pupils' self-perceptions. One parent felt her son, who had low self-perceptions, was not aware of being different. She said, "To him he's as normal as the next person. ... He's not understanding enough to know he's any different".

7.3 Summary

Although some common features have been identified, the factors that contribute to the self-perceptions of pupils with Down Syndrome are, to an extent, unique. Some pupils, for example, sustain high self-perceptions in the face of low academic achievement, poor physical competence, a lack of friendships, parental separation or divorce, hearing and/or visual impairments, heart defects, an awareness of having Down Syndrome and being considered "different". Other pupils facing similar experiences have low self-perceptions.

CHAPTER 8

DISCUSSION OF RESULTS

8.1 Introduction

The findings from studies 1 (Chapter 5) and 2 (Chapter 7) will be discussed together under the general heading of substantive findings. This will include a discussion of sample means and age, gender and school placement effects. The implications of these findings for schools will also be discussed.

8.2 Substantive findings

The aim of study 1 was to provide an insight into how pupils with Down Syndrome perceive themselves and how these perceptions change with age, sex and school placement. Of most significance is the finding that pupils with Down Syndrome regardless of self-perception domain (academic, physical, social), age (8 to 16 years), gender and school placement (special or mainstream school) hold positive views of themselves. The overall means were also similar to, and slightly higher than, the means reported for pupils without learning difficulties (Harter & Pike, 1984).

Inspection of the subscale scores for both instruments show that pupils with Down Syndrome tend to rate themselves higher for the two competence domains and lower for the social domain. This pattern was also found by Harter and Pike (1984). A higher perception in these domains is expected because judgements about competencies are argued to be more related to appraisals of the self, while social acceptance also takes into account appraisals about the characteristics of others (Harter & Pike, 1984).

However, it is important to note that the self-perceptions of pupils with Down Syndrome and of the Harter and Pike (1984) sample were not compared statistically. Because the focus of this study was the self-perceptions of pupils with Down Syndrome, it was not considered necessary to statistically compare the pupils' self-perceptions with the self-perceptions of other pupils with and without learning difficulties. The Harter and

Pike (1984) norms are presented in the quantitative results chapter (Chapter 5) because these norms help to highlight that the self-perceptions of pupils with Down Syndrome are high.

Furthermore, for technical reasons the Harter and Pike (1984) norms were not suitable for comparison with the study sample. The Harter and Pike (1984) sample differed from the study sample on a number of factors other than Down Syndrome, for example, age and socio-economic status. The changes made to the standard wording of the Scale (see appendix 3.2) in this study also limits the validity of any comparisons made between the two samples.

The finding that pupils with Down Syndrome have high self-perceptions runs counter to the assumption noted by Montgomery (1994), that pupils with learning difficulties will have low self-perceptions. The finding also runs counter to the mainly American research discussed in the introduction (Chapter 2) which suggested that pupils with learning difficulties have low academic self-perceptions (e.g., Grolnick & Ryan, 1990; Montgomery, 1994; Renick & Harter, 1989). There are a number of potential reasons to explain why pupils with Down Syndrome in this study had high, rather than low self-perceptions. First, this study differed from those mentioned above in relation to the date it was carried out and the instruments used. Perhaps, for example, society's attitudes towards children with learning difficulties have become more positive and accepting between the time of this study and the date of the studies reported above (i.e., between 1989 and 1994). Such an attitude change is to be expected in the face of growing legislation (e.g., DfEE, Oct. 1997) encouraging the integration of pupils with special educational needs. However, a four year time-span is unlikely to wholly explain the high self-perceptions of pupils with Down Syndrome.

Different research aims may also explain the apparent difference between the self-perceptions of pupils in this study and the self-perceptions of pupils with learning difficulties in the American studies. The American studies discussed in the Introduction were comparative studies. In these studies, the self-perceptions of pupils with learning difficulties were statistically compared with the self-perceptions of pupils without

learning difficulties. Conversely, this study focused on the self-perceptions of pupils with Down Syndrome and intra-group differences. This focus was chosen because little research exists on the profile of the self-perceptions of pupils with Down Syndrome and on how to develop instruments to measure their self-perceptions. Furthermore, revealing inter-group differences was not expected to provide any practical implications in terms of raising and maintaining the self-perceptions of pupils with Down Syndrome.

Due to the differences in research focus, it is difficult to decipher whether, and/or to what extent, the self-perceptions of the pupils with Down Syndrome in this study differ from the self-perceptions of pupils with learning difficulties in the American studies.

In journal articles, such as the American studies mentioned above, researchers rarely provide the information (e.g., the central score of the self-perception instrument) necessary to determine whether the intra-group scores represent high or low self-perceptions on the specific self-perception instrument used. Therefore, presenting the self-perceptions of pupils with learning difficulties comparatively, detracts attention from the actual self-perceptions of the pupils. It is feasible, for example, that the self-perceptions of pupils with learning difficulties were low in comparison with pupils without learning difficulties, but were above the centre score on the self-perception scale. If so, the self-perceptions of pupils with learning difficulties in the American studies may be similar to the self-perceptions of pupils with Down Syndrome in this study.

Regardless of whether any differences exist between the self-perceptions of pupils with Down Syndrome and other pupils, it is interesting to determine why pupils with Down Syndrome hold particular self-perceptions. Since study 1 did not aim to examine the bases for the self-perceptions of pupils with Down Syndrome, it is necessary to identify potential reasons from the literature review (Chapter 2).

The literature suggests that the high self-perceptions may be explicable in terms of qualities specific to pupils with Down Syndrome. Raviv and Stone (1991) suggested three reasons for the lower self-perceptions of pupils with learning difficulties. These were school failure experiences, labelling and inherent characteristics. Although, pupils with Down Syndrome, due to their learning difficulties, are expected to experience

school failure, such experiences do not appear to have substantially lowered their self-perceptions.

In relation to labelling, pupils with Down Syndrome may have high self-perceptions because the personality stereotype associated with Down Syndrome is a positive one. Therefore, even if pupils with Down Syndrome are singled out and labelled as different, this may not be in a derogatory sense. This suggestion is supported by the data in study 2 which revealed that the majority of the characteristics attributed to pupils with Down Syndrome were positive and tended to fit the stereotype (e.g., sociable, happy and friendly). However, Down Syndrome is also associated with characteristics judged negatively by society, such as, having learning difficulties. Although the stereotype associated with Down Syndrome may help explain why pupils have high social self-perceptions, it does not explain why pupils have high academic self-perceptions.

Raviv and Stone (1989) also suggested that the self-perceptions of pupils with learning difficulties may be explained by characteristics inherent in the syndrome which impair the development of the self-concept. The suggestion of a developmental explanation is supported by the finding that pupils with Down Syndrome, due to their positive self-perceptions, are more comparable to younger pupils without learning difficulties (e.g., Harter & Pike, 1984) than to similar-aged pupils with learning difficulties not caused by Down Syndrome. However, this suggestion can only be made tentatively because of the lack of adequate comparison groups. The Harter and Pike (1984) sample did not match the study sample in chronological age, and research mentioned on pupils with learning difficulties did not use the Pictorial Scale of Perceived Competence and Acceptance or the School Situations Grid. To identify whether the pattern of self-perceptions found is specific to pupils with Down Syndrome, it would be necessary to carry out further research. Such research would need to use the same instruments to assess the self-perceptions of pupils without learning difficulties and pupils with Down Syndrome and pupils with learning difficulties not caused by Down Syndrome, who are matched on factors believed to influence self-perceptions (e.g., age, sex, school-placement, socio-economic status and ability).

Finally, on the basis of the case study findings, it is interesting to note that the level of pupils' academic competence, physical competence and sociability (as rated by teachers and parents) was not consistently related to their self-perceptions. This finding further suggests that the self-concept of pupils with Down Syndrome may develop in a similar manner to younger children without learning difficulties. As demonstrated in research on young children, pupils with Down Syndrome may not be able to distinguish between their ideal and real selves. However, the difference between the ratings of pupils, and teachers and/or parents may not be due to adults reporting pupils' 'real' competence and acceptance. Instead, the difference may be due to differences between study 1 and study 2. The aim of study 1 was to assess the self-perceptions of pupils with Down Syndrome. The aim of study 2 was to understand why pupils held particular self-perceptions and to identify factors to explain the self-perception pattern revealed in study 1. Therefore, the difference between the two sets of results may reflect the different aims of studies 1 and 2.

A consistent association was found in study 2 between poor language skills and/or antisocial and aggressive behaviour with low social self-perceptions. Therefore, to increase the social self-perceptions of pupils with Down Syndrome, it may be important to focus on developing their language skills (e.g., by speech therapy) and dealing with social skills (e.g., understanding and reducing aggressiveness). Aggressiveness may also be associated with the frustration pupils with poor language skills are expected to experience when trying to communicate. Some pupils' language, even after speech therapy, is not easy to understand. For such pupils, it is important to develop alternative means of communication, such as sign language, to prevent them from experiencing low social self-perceptions and the frustration of not being able to communicate with their peers and family.

Finally, the intercorrelations between the subscales was expected, and found, for younger pupils without learning difficulties (Harter & Pike, 1984). According to Harter and Pike (1984), young children do not differentiate between their self-perceptions across domains, and the self is expected to become more differentiated with age. The

correlation coefficients and means for the subscales support the suggestion that pupils with Down Syndrome may differentiate less between the two competence domains and more between their competence and acceptance. With a larger sample of pupils within each age-group, it would have been possible to have identified any developmental changes in the self of pupils with Down Syndrome.

8.2.1 Age differences

In relation to age differences, the self-perceptions of pupils with Down Syndrome became more positive between middle-childhood and adolescence. According to the Situations Grid, older pupils with Down Syndrome rated themselves as significantly more 'good at' and 'happy' in school situations. This pattern fits that found for pupils without learning difficulties (Marsh, 1989). However, it does not fit the pattern expected for pupils with learning difficulties. Younger pupils with Down Syndrome could be expected to have higher self-perceptions because of the purported inability of young children to differentiate between their ideal self and real self (e.g., Harter & Pike, 1984). Furthermore, self-perceptions of pupils with Down Syndrome are expected to become less positive with age due to repeated failure and growing demands on performance (Raviv & Stone, 1991) and the development of the capacity for social comparison.

The age differences revealed in study 1 also appear to run counter to some of the parental and teacher reports in study 2 on the effects of the 'teenage years', puberty and hormones. According to parental and teacher reports, the low self-perceptions of two 16 year old pupils were, in part, due to their growing awareness with age of the differences between themselves and their siblings and/or their mainstream peers. For these pupils, the period between 14 to 16 years was described as one of confusion, frustration, and disappointment rather than a time of high self-perceptions. However, pupils with Down Syndrome are a heterogeneous group. Therefore, these two examples may prove the exception, rather than a common finding. Furthermore, teenagers' frustrations are likely to affect self-perception domains other than those covered in this

study. For the older age group, it would be interesting to examine self-perceptions regarding, for example, general self-worth, opposite-sex relationships, and autonomy.

A number of plausible reasons could explain these age trends. Perhaps, pupils with Down Syndrome between 8 and 16 have not developed the capacity to distinguish between their ideal and real selves and/or to make social comparisons. The higher self-perceptions of pupils with Down Syndrome in mainstream schools also suggests an inability to use social comparisons. Second, in comparison with children with typical development, pupils with Down Syndrome may not follow the same developmental pattern in self-assessments and may use a different basis to form self-perceptions. Third, with age, pupils with Down Syndrome may become more aware of presenting themselves in a positive way, making them more susceptible to the socially desirable response tendency. However, very few of the pupils replied in a maximally positive way to all the items. Therefore, the pupils did not appear to be trying to present themselves in an unrealistically positive way. Finally, the results question Raviv and Stone's (1991) suggestion that, due to the increasing number of failure experiences building up in the memory of pupils with learning difficulties, their self-perceptions will become less positive with age. Instead, it is equally plausible that with increased age, experiences of failure may decrease in frequency and pupils may forget, or reduce the significance of their past failures. By the age of 14 to 16, pupils with Down Syndrome are likely to have mastered a number of the academic, physical and social skills they lacked at a younger age. Furthermore, by the time pupils reach the age of 14 to 16, the pupils, their teachers and parents should be aware of their specific strengths and weaknesses. This knowledge can be used by teachers and parents to increase the likelihood of pupils' experiencing success and decrease the likelihood of failure. Pupils can use their awareness, in conjunction with the greater choice accorded to them with age, to select the academic and physical tasks in which they wish to participate. In terms of social acceptance older pupils should also have a greater choice over with whom they wish to spend their time and in which social activities they wish to engage.

The greater degree of choice accorded to older pupils with Down Syndrome was demonstrated in the Further Education Departments attended by the case study pupils. According to interviews data, teachers felt that pupils benefited from being given the responsibility of choosing their own activities, and from the control this gave them over with who they worked and the activities in which they participated. Parental interviews also revealed an association between pupils' low self-perceptions and their being restricted by parents and having limited freedom of choice. Conversely, pupils with high self-perceptions tended to have parents who allowed, and even tended to encourage their children's independence. If these potential explanations are correct, choice and control over their curriculum and their lives may be an important ingredient for the high self-perceptions of pupils with Down Syndrome.

The link between greater control and higher self-perceptions is also supported by research into intrinsic motivation. Researchers (e.g., Deci & Ryan, 1985/1987/1992; Harter, 1992) found that increasing the autonomy and self-determination of pupils without learning difficulties increases their intrinsic motivation or internalisation of values and regulations. These researchers also found an association between intrinsic motivation and self-perceptions of competence.

If these findings are relevant to pupils with Down Syndrome, the greater choice accorded to older pupils with Down Syndrome, may have increased their intrinsic motivation for the activities in which they participate. This in turn may have increased their self-perceptions.

However, as noted in Chapter 2, Harter (1990) argued that extrinsic motivation may be more adaptive than intrinsic motivation for pupils with learning difficulties. Therefore, the finding that extrinsic motivation increases with age for pupils with and without learning difficulties (Harter, 1992) may help explain why the self-perceptions of pupils with Down Syndrome increase with age. For pupils with Down Syndrome, and other pupils with learning difficulties, high self-perceptions may be linked to extrinsic motivation, rather than to intrinsic motivation. Further research is required on the

motivational orientations of pupils with Down Syndrome and how motivation relates to their self-perceptions (for a research suggestion, see Chapter 10).

Finally, Hurst and Baldwi (1994) also reported a rise in the self-perceptions of adolescents with learning difficulties between the ages of 13 to 18 years. However, the self-perceptions dropped between 19 and 22 years. It may therefore be helpful to cover a wider age range in order to establish the pattern of self-perceptions for children with Down Syndrome below 8 years, and adolescents and adults with Down Syndrome above 16 years. Perhaps the self-perceptions of pupils with Down Syndrome would decline on leaving the safe and supportive surroundings of their schools. Outside school, pupils with learning difficulties are likely to be faced with a lack of social and economic opportunities.

8.2.2 Gender differences

In relation to gender differences, female pupils with Down Syndrome were found to have higher self-perceptions for all three domains on both instruments. These differences reached statistical significance for the academic and social domains on the School Situations Grid.

As found for female pupils with Down Syndrome, females without learning difficulties tend to rate themselves higher than males in verbal and social domains (Joseph et al., 1992). However, male pupils with Down Syndrome did not follow the pattern suggested by research on pupils without learning difficulties. According to this research, male pupils rate themselves higher than female pupils in academic competence (Blatchford, 1992; Marsh, 1989; Wigfield et al., 1991) and physical competence (Buda et al., 1993; Williams & Gill, 1995).

It is plausible that pupils with Down Syndrome experience different socialisation patterns to those experienced by pupils without learning difficulties. If so, socialisation may explain the different gender patterns. Male pupils without learning difficulties are likely to be under pressure from family and peers to succeed academically and physically and are likely to be aware of the domains in which society expects males to

succeed. Male pupils with Down Syndrome are unlikely to be exposed to the same family- and peer- pressure or to feel the pressure with such force. Pupils with Down Syndrome may also be less aware of what domains are considered gender-appropriate. However, this is only a speculation. Furthermore, the case studies revealed that gender stereotypes did exist for pupils with Down Syndrome. Wendy's teacher, for example, felt Wendy had been chastised for her aggressive behaviour more than male pupils because her behaviour ran counter to gender expectations about acceptable behaviour for female pupils. Research is needed into gender identity and gender socialisation experiences for pupils with Down Syndrome in order to establish whether pupils with Down Syndrome experience the same pressure, or same level of pressure, to conform to gender stereotypes.

The lower self-perceptions of male pupils with Down Syndrome may also be explained by findings that male pupils with learning difficulties are more likely than female pupils to be seen as disruptive, to receive negative feedback and to be set higher ability thresholds (Bibby et al., 1996). Therefore, the lower self-perceptions of male pupils may relate to teachers' expectations of, and interactions with, male pupils with learning difficulties. If this suggestion is correct, a different pattern of gender differences may arise in the self-perceptions for domains unrelated to school.

The gender differences may also be an artefact of the measurement instruments. The three academic situations on the Situation Grid were maths, reading and writing. Because the latter two are dependent on verbal skills, the instrument may be biased to present females more positively. However, the same trend was also found, although not to a significant extent for the Pictorial Scale (Harter & Pike, 1981/1984). The Scale contained a mixture of stereotypical male-, and female-appropriate skills (i.e., being good at number work, reading, writing, spelling and adding numbers and knowing a lot at school). Therefore, such gender differences may still have arisen if a different set of situations was used. Furthermore, the suggestion that the Situations Grid may be biased was rejected by statistical analysis of the differences between male and female pupils' self-perceptions of maths, reading and writing competence. Female pupils had higher

mean scores for maths on three constructs, hard, happy and naughty. Male pupils had higher mean scores for maths on two constructs, good and likes. Because none of the mean differences for maths reached statistical significance it is unlikely that adding more stereotypically male-appropriate skills to the Grid would have resulted in male pupils having higher academic self-perceptions than female pupils. However, in the absence of additional research it is necessary to acknowledge that the significantly higher academic self-perceptions for female pupils with Down Syndrome were restricted to their combined maths, reading and writing self-perceptions.

Before leaving age and gender, it is important to consider whether my age and gender influenced the results. I was more similar in age to the older age group, and of the same sex as the female pupils with Down Syndrome. As older pupils and female pupils were more similar to the researcher, they differed from the younger pupils and male pupils for reasons other than age and sex. Perhaps, older pupils and female pupils felt more similar and more equal to me in terms of experience and power. Younger and male pupils may have felt more inferior than myself due to their different age and/or sex. If correct, such feelings of inferiority may have led younger and male pupils to feel less competent and accepted, and thereby lowered their self-perception ratings. To assess the potential effects of researcher and pupil differences, it would be necessary to repeat the experiment with a researcher of a different age and gender.

8.2.3 School placement differences

Finally, school placement did not have a significant effect on self-perceptions. However, the means indicate that pupils in mainstream schools have more positive views of themselves than pupils in special schools. It is difficult to explain these findings on the basis of the theoretical arguments presented in Chapter 2. The finding that pupils in mainstream schools have high self-perceptions runs counter to the Social Comparison theory (Festinger, 1954). This theory proposes that being surrounded by a more successful peer group should lower self-perceptions. Conversely, researchers opposed to segregation argue that placing pupils in special schools adversely affects their self-

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perceptions because of the negative effects of labelling pupils as disabled (e.g., Soder, 1989). However, if true, pupils with Down Syndrome in special schools would have self-perceptions below the mean score of the Scale and Grid and/or would have had significantly lower self-perceptions than pupils with Down Syndrome in mainstream school. The theoretical implications of these findings are discussed in more detail in Chapter 10.

Unfortunately any conclusions about school placement are hindered by the small size of the mainstream sample. This was due to the small number of pupils with Down Syndrome integrated in mainstream schools in the Midlands. Perhaps a larger sample would have produced significantly higher or lower self-perceptions for pupils in mainstream schools.

The higher self-perceptions of pupils in this study with Down Syndrome in mainstream schools could be accounted for by a number of reasons. First, pupils with Down Syndrome in mainstream schools may be integrated because they are more competent than their peers in special schools. Therefore, their higher self-perceptions may be a realistic reflection of their higher competence and acceptance. For example, Lucy, who attended a mainstream school, appeared to be one of the most able pupils in study 1. This argument could also explain the higher self-perceptions of pupils in schools for moderate learning difficulties in comparison with pupils in schools for severe learning difficulties. Second, pupils with Down Syndrome in mainstream schools may be made to feel different in a special way and this may boost their self-perceptions. Alternatively, in mainstream schools pupils with Down Syndrome may be unable to detect their relative incompetence because of, for example, frequently being withdrawn for instruction and/or working on different tasks. The findings may also relate to differences in family background. Parents who want their children to attend a mainstream schools are more likely to face barriers to their school preference, than those parents whose children enter special schools. Such parents may differ from parents of children with Down Syndrome in special schools in terms of, for example, acceptance of their child's learning difficulties, perceived importance of academic competence, and expectations

for their child. This suggestion is supported by two case study pupils who were integrated into mainstream schools. These were the only two case study pupils whose parents had started an enrichment programme with them from a very early age. The pupils' parents also continued to devote considerable time to their daughters' educational progress and had fought to ensure their children received mainstream education.

The findings from study 2 may also help explain the lack of significant differences between school-placement types. Mainstream and special schools shared a number of features likely to influence pupils' self-perceptions. Therefore, the lack of differences in the self-perceptions of pupils in special and mainstream school may be due to the growing similarities between the two schools types and the ability of both schools to meet the needs of a diverse range of pupils.

The teachers in special and mainstream schools appeared to have high expectations, as exemplified in the quotes in Chapter 7 under 'School factors'. According to the Green Paper (DfEE, 1997), "Good provision for SEN [special educational needs] does not mean a sympathetic acceptance of low achievement. It means a tough-minded determination to show that children with SEN are capable of excellence. Where schools respond in this way, teachers sharpen their ability to set high standards for *all* pupils" (p.4). Furthermore, according to the self-fulfilling prophecy (Rosenthal & Jacobson, 1968), children are aware of teachers' expectations and conform to them. Therefore, the case study pupils with Down Syndrome are expected to have high self-perceptions, regardless of their school placement because their teachers, and sometimes their parents, have great expectations for their progress.

The case study findings questioned this latter suggestion because little consistency was revealed between pupil and teacher perceptions. However, this lack of consistency may be not be due to teachers' expectations having no impact on pupils' self-perceptions. First, teachers' perceptions of pupils' current ability levels may not relate to the expectations that they communicate to their pupils. It is also important to note that attitudes do not necessarily correspond to behaviour. Furthermore, the validity of the

teacher interviews may be questionable. Teachers are likely to want to present themselves as positive about, and encouraging of, their pupils during an interview on pupils' self-perceptions.

If high teacher and parental expectations are important to high pupil self-perceptions, the Green Paper's proposal of target setting is likely to encourage teachers to think about how pupils can progress and what will be of challenge to them. The Green Paper also encourages schools to enter pupils with special educational needs for traditional qualifications, (e.g., GNVQ's and GCSE's) and new Nationally recognised qualifications (i.e., Certificates of Achievement). According to the Green Paper, the addition of these new qualifications will allow full recognition of pupils' achievements and will provide more pupils with special educational needs with the opportunity to progress to higher levels of qualifications. Working towards such an academic goal may motivate pupils with Down Syndrome to achieve. Furthermore, study 2 revealed that feeling accepted and similar to ones' peers is important to self-perceptions. Therefore, being able to take the same examinations as their siblings and peers should reduce the likelihood of pupils with Down Syndrome feeling different from others.

Mainstream and special schools also offered pupils with Down Syndrome a differentiated curriculum and adapted this to meet a wide range of needs. Therefore, regardless of whether pupils with Down Syndrome were in mainstream or special school they had the opportunity to try different activities set at a level suitable to their individual abilities.

Finally, pupils with Down Syndrome, whether in a mainstream or special school, appeared to be accepted as part of the school. This was clearly shown in the case study of Lucy who attended a mainstream secondary school. Her teacher appeared to perceive and treat Lucy as similar to other pupils in the school. It is likely to be very important to any pupil to be included in, and accepted by, a school.

However, it is important to consider the potentially negative effects of high expectations. One teacher, for example, wrote the following in response to my request for respondent validation:

"The greatest sense of frustration experience by the pupils in your study seems to be in self awareness and the expectations of others. Realistic and demanding expectations help develop self awareness and independence, but bring with them risks - knowing who you are may not be pleasant".

As an alternative to the suggestion of similarity between school-placements, differences between the school types may explain the lack of school placement effect. Due to the heterogeneity of pupils with Down Syndrome, their differing abilities and needs may best be catered for by different school settings. If true, the aim to reduce the number of special schools may be harmful to the self-perceptions of some pupils with Down Syndrome. However, with the increasing awareness among Local Educational Authorities and teachers of the varying needs of pupils with learning difficulties, mainstream schools are expected to become better equipped to meet the needs of all pupils.

8.2.4 Individual differences

One important finding from study 2 was the demonstration of individual differences. The lack of commonality in the factors contributing to the self-perceptions of pupils with Down Syndrome revealed the heterogeneity of the sample. This research highlights the differences between pupils with Down Syndrome in terms of, for example, their academic, physical and social skills, their development, their relationships with parents, siblings and teachers, and their health problems. These findings support research demonstrating that people with Down Syndrome are a heterogeneous group (e.g., Fowler, 1990; Stratford & Gunn, 1996; Zigler & Hodapp, 1991). Such a finding is important because research which reproduces social stereotypes is considered disempowering (Troyna, 1994). Therefore, this research does not present Down Syndrome as a defining feature of the pupils. Instead it highlights that pupils with Down Syndrome are as individual as any other group of children or adolescents.

The respondent validation letters (Appendix 9) revealed that parents and teachers also highlighted the importance of revealing the heterogeneity of pupils with Down Syndrome. Below are two extracts from respondent validation letters:

"In a way, the lack of common conclusions is strangely comforting. Down Syndrome youngsters are clearly as diverse as any other grouping ..." [parent].

"Pupils with Down Syndrome are individuals in their own right, and will, consequently develop their own characters and attitudes in much the same way as other people. ... Our challenge, as teachers, is to develop programmes which enable pupils with Down Syndrome, and their families, to make the most of their lives. I think your research will help in that development" [Mainstream school teacher].

The differences that exist between the factors contributing to the self-perceptions of pupils with Down Syndrome are probably based on the personality characteristics of individual pupils and each pupil's ability to cope when faced with adversity. Furthermore, pupils with Down Syndrome may not all adopt the same criteria on which to base their self-perceptions. Some pupils may, due to their personality and/or socialisation, adopt social comparison to establish their self-perceptions. Others may rely on self-comparison, or on feedback from significant others (e.g., teachers and parents). Therefore, in addition to varying in abilities, life experiences, and which factors impact on their self-perceptions, pupils with Down Syndrome may also vary on the bases they use to establish their self-perceptions

8.2.5 Possible reasons for self-perceptions

Study 1 was not designed to examine the bases for self-perceptions. Firstly, this was because the Scale and Grid used in study 1 were designed to reveal the self-perception profile of pupils with Down Syndrome. Secondly, the use of Situations Grid in this study

differed from the more common and idiographic use of the Personal Construct Psychology approach.

Traditional Personal Construct Psychology methods were used to elicit the constructs to be used in the Situations Grid. During the pilot study constructs were elicited by asking each individual pupil how he/she differed or was similar to his/her classmates. Conversely, during the main study, the same five constructs were used across all the pupils and pupils were not explicitly asked to compare themselves to a specific other when completing the Situations Grid. Since the constructs were not applied under the same comparative context in which they were elicited, the applicability of the constructs to the School Situations Grid may have been limited.

Furthermore, using the more conventional and idiosyncratic Personal Construct Psychology approach would have revealed how pupils with Down Syndrome see themselves with regard to their classmates. However, it is not possible to assume that pupils with Down Syndrome use self-other construal to determine their self-perceptions. Therefore, using a grid which required social comparison may not have provided an accurate representation of the pupils self-perceptions. Since no research exists on how pupils with Down Syndrome form their self-perceptions, it was necessary to use instruments which gave pupils the freedom to use their own preferred bases for determining their self-perceptions. Having now identified two such instruments and demonstrated their reliability, an important area for future research would be to identify what bases the pupils used to evaluate their self-perceptions when completing the instruments.

Also the case studies were not designed to examine the bases for self-perceptions. However, they did reveal a number of factors that may be important to the self-perceptions of pupils with Down Syndrome. Although, as stated above, the factors that lead to the self-perceptions of pupils with Down Syndrome are to an extent unique, the case studies did reveal some common factors necessary (although not sufficient) for high self-perceptions. Most of these appear to overlap with the literature on the self-perceptions of pupils without learning difficulties.

In relation to home life, necessary conditions for high self-perceptions were found to be: a loving and accepting home life; parents who allowed their child a degree of freedom (rather than being too protective); parents who did not treat pupils with Down Syndrome too differently from their siblings (other than differences appropriate to, for example, age); and parental involvement in the pupil's schooling. The first three conditions are supported by research on the attachment of pupils without learning difficulties (e.g., Cassidy, 1988; Jacobson & Hoffman, 1997; Verschueren et al., 1996). Pupils who are not accepted by their family and who are not able to participate in the same activities as their siblings may be expected to feel, for example, singled out as different from, and/or less competent than, their siblings. The final condition of parental involvement in school is interesting in light of recent recommendations by legislation (e.g., DfEE, 1997) to increase the involvement of parents in their children's schooling. Further research is needed to understand the association between parental involvement in schooling and the high self-perceptions of pupils with Down Syndrome. The research by Deci at. al. (1992) suggests that the involvement of significant adults in schooling promotes pupils' internal motivation, achievement and adjustment. Perhaps a similar association exists for pupils with Down Syndrome. Whatever the reason, the findings from study 2 suggest that the move towards further parental involvement espoused in the Green Paper may have positive effects on school-related self-perceptions of pupils with Down Syndrome.

The remaining area in which common conditions were revealed is pupil characteristics. The case study findings suggest that poor language skills and aggressiveness lead to low self-perceptions.

Finally, it is interesting to note some of the features of Lucy's case study because Lucy had the highest self-perceptions of the pupils in study 1. Lucy appeared to have the necessary features of a loving family. She was given a degree of freedom and was treated in a similar manner to her siblings, although with more restrictions as Lucy was the youngest child by 4 years. Lucy's language skills were good, she was not aggressive and her parents spent a lot of time helping Lucy with school work and liaising with her

school. Lucy's parents also emphasised two additional factors that may have contributed to Lucy's high self-perceptions. First, Lucy's parents tried to make Lucy aware that everybody, not just herself, has limitations and difficulties. Second, Lucy's mother dealt with bullies by explaining to Lucy that the bully is the one with the problem because he/she cannot understand or accept that everyone is different. This approach de-emphasises Lucy's difficulties by putting them in a context in which everyone has limitations. Therefore, Lucy is expected to feel similar to her siblings and her mainstream peers. Feeling similar may be very important for pupils with Down Syndrome, especially during childhood and early adolescence where one aim is to fit in with your peers.

It is important to note that above mentioned factors are not a prescription for attaining high self-perceptions in pupils with Down Syndrome. Lucy's mother was able to explain things like bullying in depth to Lucy because Lucy has good comprehension skills. A parent whose child experiences difficulties with comprehension, may not be able to communicate such an explanation to his/her child. In addition to heterogeneity in abilities, pupils with Down Syndrome are a heterogeneous group in their personality characteristics. Therefore, some pupils may not respond positively to such an explanation. In summary, it is not possible to make generalisations from a single case study about factors likely to lead to high self-perceptions. Instead parents and teachers must draw on their knowledge of individual pupils to determine how best to sustain and enhance pupils' self-perceptions.

8.3 Implications for schools

The finding that the competence levels of pupils (as rated by parents and teachers) were not consistently associated with either high or low self-perceptions has implications for practice. Because actual abilities may have little effect on pupils' self-perceptions, teachers may have to concentrate on factors other than competence in order to raise the self-perceptions of pupils with Down Syndrome. Further research is required to

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identify these factors. However, this research suggested at least two important factors, namely increasing pupils' control over their learning and raising teachers' expectations.

The finding that the self-perceptions of pupils with Down Syndrome increased with age, may reflect developmental changes and/or increasing freedom of choice. The basis on which pupils with Down Syndrome establish their self-perceptions may alter with age in such a way as to increase the likelihood of high self-perceptions. However, the case study findings suggested that degree of freedom also played a role in self-perceptions. Pupils whose parents allowed them more freedom had higher self-perceptions than did pupils whose parents were more restrictive. Therefore, in order to establish and/or maintain high self-perceptions in pupils with Down Syndrome, teachers and parents may need to offer pupils more control over their lives and to give them more freedom over which activities they chose to participate in and with whom they wish to interact.

Furthermore, if self-perceptions of competence are found to relate to intrinsic or extrinsic motivation for pupils with Down Syndrome, the self-perceptions of these pupils could be enhanced by introducing into the school context, factors found to enhance intrinsic or extrinsic motivation. Research (e.g., Deci & Ryan, 1992; Ryan, Connell & Grolnick, 1992) suggests that to increase intrinsic motivation, schools should, for example, increase pupils' sense of self-determination and autonomy, provide a context which facilitates relatedness between pupils and teachers, set optimally challenging tasks, encourage task goal orientation rather than ego goal orientation and avoid the use of controls (e.g., rewards, threats, surveillance, evaluation, and competition). Conversely, to support extrinsic motivation teachers should, for example, offer guidelines on what pupils should do and how they should complete each activity, provide frequent external feedback on pupils' performance and offer pupils assistance when they are required to master new material.

In terms of gender, it appears necessary to further investigate the potentially negative effects of school, and of teacher expectations on the self-perceptions of male pupils with Down Syndrome. If the lower self-perceptions of male pupils are found to relate to

the gender expectations held by teachers and significant others (e.g., pupils' parents), such expectations will need to be critically examined. It is important to remember that pupils are individuals, and therefore, should not be grouped under a single common identity, even for factors, such as, gender.

CHAPTER 9

METHODOLOGICAL ISSUES AND DIRECTIONS FOR FUTURE RESEARCH

9.1 Introduction

In order to assess the validity and reliability of the results presented in Chapters 5 and 7, it is necessary to discuss the strengths and weaknesses of the methods used to assess self-perceptions. This Chapter will cover the methodological issues associated with study 1 and 2. The final section will present a number of suggestions concerning directions for future research.

9.2 Methodological issues: Study 1

One research aim was to devise a sound means of assessing the self-perceptions of pupils with Down Syndrome. Therefore, it is important to assess the reliability, validity and applicability of the instruments employed to measure self-perceptions.

9.2.1 Reliability and validity

As shown in the results section of Chapter 5, the reliability of the Pictorial Scale of Perceived Competence and Acceptance, as assessed through indexes of internal consistency, was found to be acceptably high, and higher than the reliability scores reported by Harter and Pike (1984). The internal consistency of the School Situations Grid, as assessed on the basis of expected differences, was also found to be acceptable because the pupils' responses fit the pattern expected between positive and negative constructs. These findings of internal reliability suggest that the pupils understood the instruments as they were able to respond consistently and logically.

Unfortunately, consistency between the two instruments was only found for the academic domain. The lack of a significant correlation between the instruments in the physical and social domains, however, does not necessarily invalidate either or both instruments. Instead, this finding may mean that both instruments tap different aspects

of physical competence and/or social acceptance. Like the Pictorial Scale, the School Situations Grid taps physical competence, but it also taps other feelings and behaviours associated with physical activities, for example, happy when doing, likes doing, naughty when doing and finds hard. Like the Pictorial Scale, the School Situations Grid taps social acceptance, but it also taps social preferences or how pupils feel about being with particular others, for example, "Are you happy when you are on your own", "Are you naughty when you are with lots of friends?". Perhaps the School Situations Grid should be seen more as a joint measure of self-perceptions and self-preferences.

Although the two instruments were not highly correlated, the mean scores for the subscales followed the same pattern and the trends found in age, sex and school placement were the same for both instruments. This consistency in mean scores and trends suggest that pupils' responses were valid.

The item scores and ranges revealed considerable variability indicating that the instruments were sensitive to individual differences in perceived competence and acceptance. Another advantage of the two instruments was that the response formats allowed for easy detection of response sets. On each page of the Pictorial Scale were two pictures depicting a competent/accepted child and incompetent/not accepted child. These pictures were randomly placed so that for half of the questions the picture of the competent child was on the left-hand side of the page and for the remaining half of the questions the picture of the competent child was on the right-hand side of the page. On the School Situations Grid, because some of the constructs were positive (i.e., good at, happy, likes) and others were negative (i.e., hard and naughty) it was possible to detect response sets. Therefore, the two instruments therefore appear to provide a sound means for assessing the self-perceptions of pupils with Down Syndrome.

However, there were three limitations associated with the instruments. First, due to the forced choice response format, it was not possible to establish whether pupils chose a particular picture because it best described them or because it was the only picture remaining after the alternative had been discarded. In relation to this problem, the Grid provided a superior measure because it gave the pupils three, rather than two options.

Second, because the instruments contained pre-determined items, it was not possible to establish whether the contents of the instruments were salient to the lives of the pupils. Without knowing how salient academic, physical and social self-perceptions are to pupils with Down Syndrome, it is not possible to establish how much impact the self-perceptions covered in this study had on their self-concepts.

Third, the validity of the Scale and Grid was not assessed against more objective criteria. I did not assess pupils' responses against their school grades or teachers' assessments. This was because the aim of the research was to assess pupils' self-perceptions. However, it would have added insight and would have helped assess the validity of the data, if I had adopted a validity check similar to that employed by Harter and Pike (1984). I could have asked a subsample of more able pupils to provide me with reasons for their responses to the Scale and the Grid. However, the validity of the data were shown in the consistency between the data trends of the Scale and Grid, and also by the support the case study interviews provided for pupils self-perception scores.

Finally, it is important to remember that this study is not representative of all pupils with Down Syndrome. This is because the sample was drawn only from schools in the Midlands. Therefore, any generalisations to pupils with Down Syndrome living in different areas is limited by the potential effect of location on pupils' self-perceptions. According to the Green Paper on Special Educational Needs (DfEE, 1997), Local Educational Authorities still differ on a number of features relevant to the education of pupils with learning difficulties. These include, access to and quality of provision, educational services provided, training for learning support staff, degree of choice locally, funding levels and the opportunity to attend a mainstream school. In addition to differences in educational provision, it is also necessary to consider the economic, political and social climate of the Midlands. To increase the utility of the findings, this study should be repeated in other areas, and especially in areas that differ from the Midlands in terms of, for example, educational, political, social and economic factors.

9.2.2 Instrument applicability

Overall, the fact that the majority of pupils were able to comprehend and complete the instruments was encouraging considering the heterogeneity of the sample in terms of their age, language skills, attention spans, motivation and co-operation levels.

It is likely that the practical difficulties noted by Eiser et al. (1994) in administering the Pictorial Scale were reduced in this study by working individually with pupils rather than in groups, and by changing some of the wording of the Scale, for example, substituting ambiguous phrases like 'pretty many', for simpler phrases, like 'three or four' (for list of word changes see Appendix 3.2). Although time consuming, I recommend administering the Scale individually to pupils, especially if the pupils are young and/or have learning difficulties. Working with pupils on a one-to-one basis enables the researcher to clarify any misunderstandings. Furthermore, in the absence of his/her peers, pupils may feel less inhibited to say when they are having comprehension problems.

In spite of the careful choice of techniques and the flexible approach, some pupils were unable to complete the Scale (seven out of 96) and the Grid (30 out of 96). Included in these numbers are pupils whose response patterns suggested they did not comprehend the instruments, for example, pupils who pointed to the left- (or right-) hand picture throughout the Scale or pupils who posted all the Grid responses into the same post-box. In addition to this, two pupils refused to participate.

No significant differences were found between the self-perceptions, as measured by the Pictorial Scale, for the 23 pupils who completed only the Scale and the 64 pupils who completed the Scale and the Grid. No comparisons could be made between the self-perceptions of the nine pupils (seven pupils unable to complete the instruments and two pupils who refused) and the other 87 pupils in study 1. Therefore, it is important to note that the self-perception instruments may not be appropriate for, and this study's results may not generalise to, a subsample of pupils with Down Syndrome. This subsample included pupils who did not have the cognitive capacity, the motivation or the desire to complete the self-perception instruments.

Unfortunately the instruments failed to provide these pupils with the opportunity to express their self-perceptions. A different approach or approaches may be required for these pupils. These pupils may have benefited, for example, from working with a familiar adult with an insight into their strengths, weaknesses and preferences.

It was important to ensure that the pupils who could not, or did not, want to complete the instruments were not made to feel they had failed. The two children who chose not to participate were told it was 'all right' for them to refuse participation and they were thanked for their time. One pupil appeared to refuse because she was engrossed in another game so I played this game with her instead. The other pupil initially agreed to participate but then carried out a number of avoidance strategies similar to those mentioned by Wishart and Duffy (1990). In between co-operating, the pupil, for example, threw the Scale on the floor, tried to rip out the pages, stood up and walked around.

When a pupil was unable to complete the Scale, we looked through the picture book together and I asked simple questions while pointing at the activities depicted, for example, "Do you like running?". When pupils were unable to complete the Grid, they were given the situation pictures, asked simple questions about the activities depicted and then asked to post the pictures in whichever post box they wanted. At the end of each interview the pupils were always thanked for their help.

I feel that the pupils would have benefited, by way of feeling more comfortable, if I had been able to spend more time with them before the administration of the Scale. Unfortunately, due to time constraints, working with so many pupils and not wishing to interrupt too many of the pupils' days, I did not visit each pupil as often as I would have liked. Due to, for example, individual characteristics, such as shyness and how accustomed pupils were to working with strangers, pupils differed in the time with which they appeared comfortable working with me. Pupils were deemed relaxed when, for example, they were able to maintain eye contact, the level of their speech rose, their posture relaxed and they fidgeted less. However, I felt I had established a better rapport with the pupils who had also participated in the pilot studies and the pupils who I had

visited on more than two occasions. These pupils were familiar with me and appeared pleased to see and work with me.

9.2.3 Applicability of the scale's structure

Assessments of the applicability of the scale's structure revealed mixed results. First, it was necessary to assess the suggestion by Marsh et al. (Marsh, 1993, Marsh, Byrne & Shavelson, 1988; Marsh, Hey, Roche & Perry, 1997; Marsh & Holmes, 1990) that academic competence is not a single dimension but contains two separate domains (i.e., maths and reading self-concepts). No significant differences were revealed between the maths, reading and writing situations. This finding suggests that pupils with Down Syndrome may not differentiate between maths, reading and writing. This finding also supports the conclusions of Silon and Harter (1985), that the self-concept of pupils with 'mental retardation' is less differentiated.

However, the results from the factor analyses suggested that pupils with Down Syndrome, like pupils without learning difficulties, differentiate between academic/maths and academic/reading and writing self-perceptions. On the Pictorial Scale writing self-perceptions were associated with social self-perceptions. On the Situations Grid maths self-perceptions were associated with physical self-perceptions in factor 1, while writing and reading self perceptions were associated with social self-perceptions in factor 2. This finding suggests that although pupils with Down Syndrome do not appear to perceive any significant differences between their maths, writing and reading competence, they do not appear to associate these three domains.

Because the factor analyses were based on a small sample, it is necessary to carry out further tests to determine which factors constitute the academic self-perceptions of pupils with Down Syndrome. Furthermore, pupils with Down Syndrome may make clearer distinctions between their competence in other subjects (e.g., more practical subjects, such, as art, woodwork and home economics). Therefore, adding other subjects, to these three core subjects, should provide a greater insight into the extent to

which pupils with Down Syndrome differentiate between their academic self-perceptions.

In spite of a need for further research, the findings from this study do suggest that information may be lost by summing the self-perceptions of pupils with Down Syndrome into a single domain score. If separate self-perceptions (e.g., maths, writing, and reading) are combined to represent a single domain score (e.g., academic self-perceptions), it is important, as carried out in this research, to determine the differences between self-perceptions in each activity. As no significant differences were found between the scores it is possible to conclude that the combined academic self-perceptions represented how pupils perceived their maths, writing and reading competence. However, it is important to remember that the findings can not be generalised beyond maths, writing and reading. Furthermore, finding no significant difference between the three subjects does not prove that pupils with Down Syndrome associate these three subjects into a single academic competence domain.

Second, factor analysis revealed that pupils with Down Syndrome do not differentiate between the self-domains (i.e., academic competence, physical competence and social acceptance) in the same way as pupils without learning difficulties. Instead of the 3-factor solution obtained by Harter and Pike (1984), a 2-factor solution was revealed for pupils with Down Syndrome. These two factors included only 11 of the original 18 items and were labelled social acceptance and physical competence. Therefore, a over a third of the Scale items were redundant and only one academic competence item featured in the factor solution.

A 2-factor solution was revealed for the Situations Gird. This contained eight of the original nine items and the factors, as with the Pictorial Scale, were labelled physical competence and social acceptance. Combining the factor solutions for the Scale and the Grid suggests that pupils with Down Syndrome associate maths with physical activities within one factor and in a different factor they associate writing and reading with social acceptance.

In relation to the constructs in the Situations Grid, a 3-factor solution was revealed. This contained 13 of the original 15 items and the factors were labelled positive general competence, negative constructs and positive social acceptance. This factor solution suggests that pupils with Down Syndrome differentiate between negative and positive constructs, but they do not differentiate between academic and physical competence. As with the Pictorial Scale, pupils with Down Syndrome appear to differentiate between competence and acceptance.

In addition to some Scale items being redundant, the applicability of some Scale items was also questionable. First, some questions did not appear to be suitable for certain ages and/or levels of learning difficulties. Older pupils, for example, were asked how good they were at swinging and whether other children shared their toys with them. Pupils who were unable to read and/or write on their own were asked, for example, whether they were good at spelling. The likelihood of inappropriate items is expected when using a scale standardised on younger children and children without learning difficulties. Although this problem was anticipated, it was decided to ask each pupil all the questions regardless of age and ability because the majority of the items were deemed relevant to all pupils. The high internal reliabilities suggest that pupils were able to generalise their self-perceptions across items. Therefore, pupils who perceived themselves at a particular competence and/or acceptance level were able generalise this self-perception to seemingly irrelevant items.

Unfortunately there were not enough pupils in the study to assess age changes and gender differences in factor structure. However, such research would be important, especially considering the lack of applicability of some of the Pictorial Scale items for older pupils. Such research would facilitate the development of age-appropriate assessment instruments.

9.2.4 Participatory research

The interview location and the instruments' response format provide two examples of the limitations of this study in relation to the principles of participatory and emancipatory research.

First, pupils had no control over where they were interviewed. Teachers were asked to make this decision on the basis of where they felt each pupil would feel more comfortable working with me. In some schools I was not given the opportunity to ask teachers about individual pupil's preferences, as I was placed in a room to which the pupils were brought. However, because the head-teachers and teachers had allowed me to come into their schools, their preferred procedures were followed.

Second, the forced-choice response formats reduced pupils' control over the research process. Therefore, pupils had no freedom to define their own responses. However, the language difficulties experienced by the sample and the specificity of the research aims (i.e., to consider only three school-related self-domains) meant that a certain degree of structure was required.

It was hoped that the freedom given to pupils during the research process would compensate for these two restrictions. All the pupils had control over, for example, whether or not they participated, how long they participated, whether they carried out any non-task related activities, whether they asked questions, and if so, what questions they asked.

In the face of warnings about exploitation, invasion of privacy, and abuse of power (e.g., Booth, 1996; Goodley, 1996; Oliver, 1992; Riddell, Wilkinson & Baron, 1998) it is hardly surprising that so little research exists on the self-perceptions of pupils with learning difficulties. However, it is important to remember that the exclusion of a voice is also oppressive. Although this research did not have empowering implications for pupils with Down Syndrome, it did give them a voice and demonstrated that pupils with Down Syndrome are capable of communicating their self-perceptions.

Furthermore, this research provides practical suggestions for assessing the views of pupils with Down Syndrome and other pupils with learning difficulties. Developing

instruments appropriate for pupils with learning difficulties is especially important in light of recent legislation advocating the rights of children, for example, the Children's Act (1989) Code of Practice and Assessment of Special Educational Needs (DfE, 1994). The literature review on specific difficulties (Chapter 3) and the features of the chosen instruments, should provide researchers with a number of suggestions on how to devise reliable measures to assess the views of pupils with learning difficulties. Such instruments will help researchers and practitioners to meet the requirement of taking into account the views of children with learning difficulties and facilitating their voice being heard.

9.2.5 Procedure

In addition to the instruments themselves, further difficulties were encountered with other aspects of the procedure. The first of these relates to the method used to single out the pupils with Down Syndrome from their classmates for the research. The second relates to the flexibility of the research approach.

First, teachers adopted two main strategies to deal with the problem of selecting only pupils with Down Syndrome for the research. In general teachers implied that the pupils with Down Syndrome were chosen specifically because they were, for example, hard working, the co-operative or helpful. Unfortunately this strategy is problematic. By employing this strategy to identify pupils, teachers may have prompted pupils to give their consent to participate in the research. Pupils may have wished to fulfil their teachers' expectations or may have felt anxious about not co-operating after being specifically chosen. Therefore, this strategy may have interfered with the rights of pupils to freely exercise their power over the research process. Furthermore, teachers' explanations may have biased pupils' self-perceptions to correspond with the labels applied to them. For example, pupils picked to work with me because their teacher says they are hardworking, may be more inclined to rate themselves as hardworking on the instruments.

The second strategy, adopted by only one teacher, avoided the above-mentioned problems. The teacher asked the pupils to raise their hands if they wanted to have a break from the lesson to help me with my work. The teacher then chose the two children with Down Syndrome from the mass of raised hands. This strategy however requires a class that is enthusiastic about working with strangers.

Neither of these strategies were honest. However, they did avoid the problem of identifying pupils with Down Syndrome as different from their classmates. A number of parents, before giving their consent, expressed concern over their child being asked about 'Down Syndrome'. These parents explained that their children did not understand the concept of Down Syndrome and they did not want their child being made aware of having Down Syndrome. Therefore, I decided on the basis of teacher and parental wishes not to disclose the reason for the pupils' selection. Instead teachers were allowed to deal with the problem as they saw fit.

The flexibility of the research process provided the majority of the pupils with an opportunity to communicate their self-perceptions. However, the flexibility also resulted in a lack of consistency in the research approach. The three main inconsistencies are discussed below.

First, although the majority of pupils were interviewed outside of the classroom, seven were interviewed in the classroom with their teacher and peers present.

Second, a teacher was present while I worked with a pupil if the pupil had severe language production and comprehension difficulties, used sign language to communicate (of which I know little) and/or the teacher requested to be present. This meant that the pupils were not able to give consent or to respond to my questions privately. The presence of a teacher is likely to influence pupils' responses by, for example, increasing the formality of the situation, increasing the pupils' feelings of powerlessness, and possibly biasing the pupils' responses to conform to how they feel their teachers' perceive them. Furthermore, when teachers appeared to be leading the pupils to give a particular response, these responses had to be discarded.

Finally, where pupils did not appear to comprehend questions and instructions, due to, for example, limited language comprehension skills, the wording of the instruments was repeated and/or altered.

The majority of the sample were able to complete the instruments according to the standard format. However, the flexibility of the research approach and the heterogeneity of the sample resulted in a lack of standardisation in the research process. This lack of consistency is a disadvantage because it reduces the robustness of comparisons made across the sample. However, the choice had to be made between a flexible approach which enabled as many pupils as possible to participate, or a rigid approach which allowed for more robust comparisons. The former of these options was chosen because the aim was to enable as many pupils as possible to participate and also the results would not have been representative if only the more able pupils who could follow a rigid approach were included. Furthermore, deviations from the standard procedure appeared quite random. No one age, sex or school placement group were consistently having to be interviewed either in or away from the classroom, with or without a teacher present, with or without changes to the standard wording.

9.3 Methodological issues: Study 2

It was also necessary to establish the validity of the qualitative data collected in study 2. A discussion of the factors affecting the collection of the observational data and interview data follows.

9.3.1 Observation

When it was possible to observe pupils in both an academic and social or physical situation, the observation schedule facilitated the collection of the data, the data provided valuable confirmation of the interview data and vice versa.

Unfortunately it was not always possible to arrange to observe pupils in both situations, which hindered the triangulation of the data. No observations were taken of one pupil because he had left the mainstream school he had attended when I

interviewed him. In terms of the richness of data collected, some observations also proved more valuable than others,. Finally, as only one lesson was observed for each situation, there was no way of checking the reliability of the observations. It is possible that the observations made were atypical of pupils' behaviour in that setting. One pupil, for example, revealed during our interview that she was unwell on the day she was observed. Under this circumstance the pupil's behaviour was unlikely to be representative.

Due to the limitations of the observational data, they were not treated as the principal data source. Instead the observational data were used to expand upon the interview data and/or to clarify points raised during the interviews. In order to improve the reliability and utility of the observational data it would be necessary to carry out considerably more observations of each pupil, across the three settings (i.e., academic, physical and social). The use of an additional observer could also be used to assess inter-rater reliability.

9.3.2 Interviews

The interview data proved more valuable than the observational data. The interview schedules ensured that considerable information was gathered on each pupil under the six main headings of home life, educational history, personality, academic competence, physical competence and social acceptance. Having information on each of these topics provided sufficient data to establish potential reasons for pupil's self-perceptions and to allow comparisons to be made across pupils. The flexibility of the schedule also proved important. The flexibility in the wording of the questions enabled me to repeat and/or rephrase questions if pupils appeared to have difficulties with comprehension. The flexibility in question order, adding or deleting questions, also facilitated the flow of the interviews and made them more conversational.

As with the observational data, there was considerable variability in the richness of the interview data. The quality of the interview data depended to a large extent on the

willingness and/or ability of pupils, parents and teachers to reveal information during the interviews.

Unfortunately, I was unable to collect interview data from three of the 14 case study pupils. This appeared to be due to communication difficulties between myself and the pupils. One pupil appeared to have problems comprehending the interview questions. Instead of following the interview schedule we talked about other topics the pupil raised, such as, football and his new trainers. However, not enough relevant information was gathered to be used in the case study. I had difficulties understanding the remaining two pupils. They appeared to understand my questions, but as I was not used to their speech, I was unable to comprehend enough information to be used in the case study. I was frustrated by my inability to understand these pupils but I did not wish to keep asking the pupils to repeat what they had said. I think it would have been beneficial for me to have had someone more familiar with the pupils (e.g., a teacher) present so that he/she could have explained the pupils' replies after the interview.

The openness of the remaining participants is likely to have reflected my ability to develop a rapport with them. I felt the sharing of personal information helped me establish a rapport with the participants, and made the interview less formal. For example, when a parent talked about having to lock the kitchen to stop her son eating everything when they went to bed, I talked about having had similar experiences with my sister. One pupil and I, for example, had a long discussion about how we felt when our fathers left home and our parents divorced. Furthermore, sharing experiences also meant the interviews were more balanced. Rather than only myself asking the questions and the participants responding, both myself and the participants inter-changed roles. I feel the benefit of having an interview which is more of a two-way process is reflected in the fact that no one stopped their participation or refused to answer any questions. I also felt the information I offered about my personal experiences and background helped put participants at their ease because they realised that I was not a detached researcher with no direct experience of pupils with learning difficulties.

However, there were a number of problems associated with my having personal experiences. First, I was perceived by some participants as some kind of expert who could offer advice. One parent, for example, asked for my opinion throughout the interview. She asked, for example, what I recommended she do in the situations in which she had treated her son with Down Syndrome more restrictively than his younger brother who did not have Down Syndrome. I avoided answering these questions by, for example, sympathising with the difficulty of making such decisions and empathizing that as the boy's mother, she would know better than I what to do. As a friend I probably would have offered my opinion. However, I felt this parent perceived me as some kind of expert, and therefore she may have accorded my opinion more significance than she would have, had I just been a friend.

Another problem relating to my being viewed as a type of expert, is that participants may have been more defensive in interviews. Teachers and parents may have felt that I was evaluating them not only from the position of a researcher, but also from the position of someone who has grown up with a sister with learning difficulties. I had watched my mother raise my sister and had seen how teachers taught my sister. Therefore, participants may have considered me more likely than a detached researcher to hold personal views about what constitutes good practice amongst parents and teachers. These personal opinions may have prevented some participants from being open about their approaches to child care and teaching.

Finally, my personal experience may have prevented me from recognizing the significance of certain encounters. Due to my familiarity with some of my participants' experiences, I do not feel I reacted to them as an outsider would have. For example, I felt no surprise in response to the disclosure that a mother locked the cupboards to prevent her 16 year old son taking food. This was because my mother had responded similarly to my sister taking food. Due to my experience, I saw this action as a practical response to preventing someone, who did not appear to understand that over-eating resulted in sickness, from frequently being physically ill. Conversely, an outsider is likely to note the unusual aspects of this situation, for example, it occurred in a family home,

and the son was 16 years old. Furthermore, an outsider may have reacted negatively to this disclosure because these parents were controlling their son, denying him his freedom and failing to trust him. Although my experiences appeared to encourage participants to talk freely to me, they did interfere with my reactions to, and interpretations of certain events. It was therefore important that I considered how outsiders would react to certain disclosures in addition to how I reacted based on my personal experiences.

9.3.3 Participants' involvement in the research

In spite of my attempts to give participants power, I recognize that the power imbalance was not eliminated, especially for the pupils. I tried to explain in simple terms the interview process to the pupils and their rights to refuse participation. Unfortunately, I do not know how much of this the pupils understood. Some of my explanations may have been beyond their levels of comprehension and/or experience. With hindsight I also realize that the information I offered was limited. For example, I gave no information on my expectations in relation to publications. However, being new to research at a postgraduate level, I was also unsure of the publications that might arise from the research.

In spite of some limitations, I enjoyed the interviews with the pupils and felt the pupils also enjoyed discussing themselves with someone who showed interest in what they had to say. The teachers and especially the parents appeared to enjoy the opportunity to talk about the strengths and weaknesses of the pupils. They also appeared interested in information about my research and experiences with my sister. This is reflected in the fact that the majority of the interviews lasted well over one hour.

Parents and teachers were also given control over the analysis of the data. Unfortunately, only two parents and two teachers took the opportunity to reply to my request for respondent validation (Appendix 9). This low response rate meant that the validation exercise did not help verify my interpretations of the data. A further two parents returned their copy of the common findings without any comments attached.

Hopefully, these two parents and the remaining eight participants did not comment because they were happy with the contents of the reports. The parent who commented on the general findings made a number of useful suggestions about the text. This parent and one teacher sent letters of encouragement about the findings.

The replies of the remaining teacher and parent (who commented on Lucy's case study) were critical. Lucy's teacher phoned me to express concern about what I had written in relation to some of the comments made by Lucy's mother. Lucy's mother also expressed concern that some of her comments had been presented out of context and was upset that a copy of the case study had been sent to the school. This second concern was due to Lucy's mother misunderstanding my initial explanation concerning anonymity. Lucy's mother felt that I should have requested her permission before sending a copy of Lucy's case study to the school. However, I had explained that information about Lucy would be available only to myself and those people interviewed as part of Lucy's case study.

Before sending out the copy of the case study findings, I had carefully examined the contents of the reports. My supervisor also read the reports. Neither of us felt the reports contained anything likely to upset or offend parents or teachers. However, as mentioned in Chapter 6 under 'Sensitive Topics', researchers sometimes reveal hazardous or embarrassing information (Adler & Adler, 1993).

For a number of reasons, I decided to add the contextual information provided by Lucy's mother to Lucy's report. First, Lucy's mother did not change her comments, she merely put them in context, so as to avoid misinterpretation. For example, the teacher who read the report was upset with the comments Lucy's mother had made about the lack of support Lucy had received in some lessons. These comments were not altered by Lucy's mother in the amended report she returned to me. Second, I did not want any of the participants to feel exploited or subordinated. They had kindly given their time to help me with my research and I did not wish to upset any of them. I felt that Lucy's mother was satisfied with the report after I assured her I would alter what I had written in line with her comments. The final letter sent to me by Lucy's mother (Appendix 9.1) is

an encouraging one and therefore, I do not feel she was upset once I had discussed the research process with her. Finally, I feel it is important that researchers leave the research field open to further research. Therefore, I felt obliged to protect the reputation of educational and psychological researchers.

However, I feel that the report may have caused tension between Lucy's parents and the teacher who read the report. I transcribed from the taped interview exactly what Lucy's mother had said and therefore did not feel I misrepresented her. However, I obviously did not intend to cause these problems. I feel that, at worst, Lucy's parents and teachers may have been forced to discuss their bad feelings. At best, having been made aware of the feelings of Lucy's mother, the school may have increased the level of support Lucy received.

It is important to remember that only parents and teachers were given the opportunity to validate the findings. It would have been more ethical to have attempted to report back to the 14 case study pupils on their comments about the findings. This would have required my returning to the pupils' schools and working with each case study pupil individually. Due to time constraints and not wishing to impose any further on the pupils and schools involved, I decided against this.

With hindsight, I also feel that I should have included debriefing sessions with the participants. Initially, I did not feel it necessary. I did not include any debriefing because of the time this would involve and the distance between the researcher and each participant. The interviews ended with a general discussion about the interview, the topics raised, any questions participants wanted to ask or any comments they wished to add.

However, having read through the interview transcripts again after transcribing them, I felt that some parents due to the emotional and personal information they had shared, may have benefited from talking in greater depth about the issues raised during the interviews. One mother, for example, talked throughout the interview about the difficulties she had with her son, for example, his moodiness, stubbornness and lack of personal hygiene. However, towards the end of the interview she talked about how

confusing and frustrating her son's life must be. She said, "he's becoming increasingly aware of his difference" and aware of his inability to do all the things his siblings and peers could do. The mother said, she could understand why her son was being, "pretty horrible at the moment". After the interview, this mother may have reflected on all the negative things she had said about her son. She may have felt guilty for her negative remarks, especially after she had considered the problems her son was facing. Ideally, I would have returned to visit each pupil, parent and teacher to enable them to discuss with me their feelings about the interview.

9.3.4 Data discrepancies

In addition to the actual interview process, the quality of the data was also examined by assessing consistency. The data from the quantitative instruments, observations and interviews often confirmed each other and helped to triangulate the data. However, two types of discrepancy occurred. These were between parental and teacher interviews, and between the quantitative and qualitative data.

In relation to the former, sometimes parents and teachers disagreed about, for example, pupils' confidence levels, motivation levels, or sociability. Such discrepancies were not perceived as reducing the validity of the data. The parental and teacher reports did not vary too dramatically and also where discrepancies did occur, they could be interpreted in terms of the different settings in which parents (i.e., home) and teachers (i.e., schools) had most experience of the pupil.

The second discrepancy relates to the correspondence between study 1 and study 2. The case study pupils were chosen on the basis of their self-perception scores and the case study material was interpreted with reference to these scores. Where a discrepancy occurred the explanation was sought in the case study material. For example, if a pupil had high academic self-perceptions but was rated by his/her teacher as academically less competent than his/her peers, a potential explanation for this was that the pupil had not developed the capacity to make social comparisons. The quantitative data were not given precedence because it was deemed superior to the

qualitative data. Rather, the quantitative data were given precedence because it is drawn solely from the pupils. The study aimed to assess how pupils viewed themselves, regardless of how accurate these perceptions were in comparison to more 'objective' measures or to the perceptions of adults.

As the case study data were often so rich and complex, I was concerned that it would be possible to find factors within each case to explain high and low self-perceptions, regardless of the case study pupil's self-perceptions. However, this was deemed unlikely because of the correspondence between the self-perception scores and the validation ratings of two post-graduate students (Appendix 10). These students rated pupils' self-perceptions on the basis of the case studies alone, and were blind to the quantitative data.

As with the observational data, the interview data were limited because they only gave a snap-shot of the lives of the pupils. Although the participants talked about previous events, it was only possible to establish how these events were currently affecting the pupils. It was not possible to record the effect these events had at the time they occurred. With time, Wendy, for example, may come to terms with her parents' separation and if the separation is a contributing factor to her disruptive behaviour, such behaviour should cease with time. Therefore, collecting data over a more extended time period would have been insightful. Furthermore, it would help to avoid the problem of relying on participants' memory of events some time after they had occurred.

Finally, it is important to recognize, as is the case with all interview and observational data, that the case studies represent my interpretation of the pupils' behaviour, my interpretation of the pupils' responses and my interpretation of parents' and teachers' interpretations of the case study pupils' lives. My interpretations are based on the data I had available and these are backed up by quotations and/or observations. The research did not aim to identify the factors that cause particular self-perceptions. Instead, the aim was to give a general indication of the possible factors that may affect the self-perceptions of pupils with Down Syndrome and, in doing so, to reveal the unique and complex interrelation of factors that operate in each case.

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9.4 Amendments

There are a number of suggestions on how to improve this study's method and how to extend the implications of its findings.

To increase the validity of the research, a number of additions should be made. Researchers should consider, the applicability of the Pictorial Scale, the inclusion of comparison groups and the inclusion of validity checks.

In relation to the limitations of the Scale, it may be an improvement, where possible (i.e., a less heterogeneous sample in terms of age and abilities), to discard items likely to be irrelevant to the experiences of the specific research sample. Alternatively, a range of scales similar to the Pictorial Scale, could be developed that would be appropriate to each age group of pupils with learning difficulties and to differing levels of learning difficulty. However, each scale would need to be checked for reliability.

Teachers are likely to be of great assistance in assessing the applicability of scale items for their pupil(s). Furthermore, where items are deemed inappropriate, teachers could be asked to suggest, for example, appropriate physical activities for older pupils and appropriate academic activities for pupils with severe learning difficulties.

Because very few of the pupils with Down Syndrome in this study were likely to be good at spelling, this item could be discarded for all pupils. It would be necessary to replace it with an item likely to be applicable to all pupils, for example, answering teachers' questions in class. For older pupils it may be necessary to replace some physical items, for example, good at swinging, good at skipping and good at jumping rope. On the basis of my experience in the schools, these items could be replaced by, for example, cricket, netball, rounders, gymnastics and tennis. For pupils with severe learning difficulties it may be necessary to replace the items good at numbers, can read alone, good at writing words, and good at adding. Instead of the First/ Second grade version of the Scale, pupils with severe learning difficulties could be asked some or all of the questions from the Pre-school/ Kindergarten version of the Pictorial Scale (Harter & Pike, 1984). The academic items on this Scale are; good at puzzles, gets stars on

paper, knows the names of colours, good at counting, knows the alphabet, knows the first letter of name.

Future research would also benefit from the inclusion of appropriate comparison pupils without learning difficulties and with learning difficulties not caused by Down Syndrome. Making comparisons across these groups would give more insight into whether and, if so, how pupils with Down Syndrome, as a specific group, differ in their self-perceptions.

To provide more insight into the basis of the self-perceptions of pupils with Down Syndrome, future research could include convergent validity checks, similar to those employed by Harter and Pike (1984). In their study pupils were asked to give reasons for their competence and/or acceptance ratings. This information should help establish the validity of the responses of pupils with Down Syndrome, and may help elucidate why their self-perceptions increased with age, and were greater for females and for pupils in mainstream schools. Unfortunately, time constraints precluded gathering such information in the present study. Furthermore, because of the language difficulties experienced by many of the pupils in this study, future research would require either the development of a less language based method to collect such information and/or only asking a more language proficient subsample of pupils.

Finally, although the Repertory Grid Technique was used only for the pilot study, I would recommend its use for research where the aim is to assess the self-perceptions of individual pupils with Down Syndrome. The technique is a flexible tool which can be used to provide pupils with the freedom to, 'speak for themselves'. Furthermore, the data I gathered from pupils who were able to complete the grid were very interesting and provided me with a great deal of information on each pupil.

9.5 Directions for future research

The implications of the research findings could also be extended in two ways. First, the motivational orientations of pupils with Down Syndrome could be examined. Research on pupils without learning difficulties suggests that internal motivation is associated with high self-perceptions. However, it is not possible to assume that intrinsic motivation in

pupils with Down Syndrome will also lead to high self-perceptions. Providing schools with information on which factors, such as, intrinsic or extrinsic motivation, encourage high self-perceptions in pupils with Down Syndrome, would enable schools to promote high self-perceptions in these pupils.

Current research on motivation provides useful insights into how motivation can be measured (e.g., Harter, 1992; Ryan & Connell, 1989). However, it is important to adapt these approaches, in line with the suggestions from Chapter 3, so as to make them suitable for pupils with Down Syndrome. In addition to presenting items verbally, pictures relating to each item could also be provided. To indicate the degree of intrinsic motivation, for example, in addition to asking how much pupils agree with the statement, "I do my schoolwork because I enjoy it", researchers could present pupils with a picture of a pupil, in his/her classroom with the teacher present, smiling as he/she works. To indicate the level of extrinsic motivation, for example, the statement, "I do my schoolwork because my teacher will be pleased with me if I do", could be given while showing pupils a picture of a pupil handing over his/her book to a smiling teacher.

Second, it would be beneficial to determine the impact of academic, physical and social self-perceptions on the self-concepts of pupils with Down Syndrome. This is because only areas in which people consider it important to succeed are believed to affect their self-concept (e.g., Harter, 1990; James, 1890). Below is a brief suggestion of two studies to assess the importance of school-related subjects. The two studies differ on their specific aims. However, the sample, setting and basic measure are relevant to both studies.

9.5.1 Sample

As with the Pictorial Scale and Grid, the Importance Scale is expected to be relevant to pupils with Down Syndrome between the ages of 8 and 16 and for pupils with learning difficulties not caused by Down Syndrome. [The justification for using the instruments with pupils without Down Syndrome is given in Chapter 10].

If the pictures used in the Pictorial Scale and/or Grid are used in the Importance Scale, the sample should consist of pupils other than, or in addition to, those used in this study. This is because the pupils may recognize pictures from the Scale and Grid. This could result in pupils' selecting these pictures for reasons other than their importance, for example, familiarity with the pictures or expectations that these are the pictures the researcher would want them to select. Furthermore, if the Importance Scale is to be used in the same study as the Pictorial Scale and Grid, it will be necessary to control for order effects by, for example, randomising the order in which the three instruments are administered.

9.5.2 Setting

School may not provide an appropriate setting for examining pupils' perceptions of activities carried out within and outside of school. This is because school-related activities may be salient for pupils while at school. However, in other settings, school-related activities may be perceived as less important. Therefore, a pilot study should be carried out assessing pupils in different locations, for example, at school, at home, or at a youth club. If context is found to influence self-perceptions of importance, then pupils in the main study will have to be randomly divided into groups so that an equal number of pupils complete the Scale under each context.

9.5.3 Measure

On the basis of what I have learnt through doing this research, I suggest that the Importance Scale should consist of a number of line-drawings (similar to those used in the Scale and Grid). Line drawings are likely to be appropriate to this sample because, in this research, pictures helped sustain pupils' attention by provided them with something to look at and manipulate.

9.5.4 Study 1a: Importance of school-related activities

The aim of this study would be to provide an insight into how school-related activities relate to other activities on the dimension of importance. Pupils would be required to rank a group of pictures. The number of pictures shown at one time should be restricted to about seven pictures. From the pilot study 1a, in which the Repertory Grid Technique was used, seven elements appeared to be a manageable number for the pupils. Any more pictures may exceed pupils' attentional capacities.

In addition to pictures relating to academic competence (e.g., reading, writing and mathematics), physical competence (e.g., running, swimming and ball games) and social acceptance (playing with one child, playing with lots of children, playing alone), pictures should also cover additional potentially salient activities, within and outside of school. For example, doing art and painting, doing woodwork, doing cookery, helping to do the gardening/ cooking/ housework at home, being with a friend of the opposite sex, being with family, being with siblings.

Each group of seven pictures should contain at least one academic, one physical and one social picture. To determine the most suitable picture groupings, a pilot study would need to be carried out. Two suggestions for determining suitable pictures are as follows.

- Pupils could be asked to rank the three academic, three physical and three social pictures separately. Then the activity from each domain considered by the pupil to be the most important (e.g., maths) could be used for the Importance Scale. However, including pupils' favourite school activities may bias the Scale to support school-related activities as the most important. Alternatively the picture ranked second in each domain could be used in the Scale. However, this may also have limitations as it may bias the instrument to support non-school related activities as most important.

- Pupils could rank each set of school-related pictures separately alongside non-school related activities. For example, the first set of pictures could include three pictures relating to the academic domain (e.g., maths, reading and writing) with four additional pictures (pictures of physical or social activities). The second set

could include the three pictures relating to the physical domain with four additional pictures (pictures of the academic or social activities). Similarly the social domain pictures should not be presented with the academic or physical domains. However, including either three academic, physical or social pictures in each set will increase the chance of a school-related picture being chosen.

Procedure: The first set of seven pictures are placed in front of the pupil. The pupil is asked to name all the activities in the pictures to ensure he/she is familiar with them. If the pupil is unable to identify an activity, the researcher explains the activity and asks the pupil questions to determine whether he/she is familiar with the activity. If the pupil is still not familiar with the activity, the picture is removed and replaced by a suitable alternative.

Second, the pupil is asked to, "Pick out the picture of the activity that you would most like to be good at". This picture is removed and the question is asked again for the remaining six pictures. This procedure is repeated until all seven pictures have been rated. The procedure is then repeated with the remaining sets of pictures.

9.5.5 Study 1b: Importance of academic, physical and social activities

The aim of this study would be to assess the importance of individual school-related subjects. In terms of for data analysis, the most convenient approach to assess the importance of school-related domains would be to utilize a three or four item scale. The number of items would depend on the number of items used in the Scale to assess pupils' competence. The discrepancy between the Importance score and the Competence score could then be used to indicate a pupil's self-concept.

Procedure: A similar procedure to that described in this study (Chapter 5) could be adopted. Pupils are given a picture of a school related activity (e.g., maths) and asked to post it in one of the three or four post boxes representing different levels of

importance. On a three point scale, for example, box one could represent very important to be good at the activity, box two could represent neither important nor unimportant and box three could represent not being important to be good at the activity.

9.6 Summary

Having discussed the methodological issues and directions for future research in this chapter and the meaning of the results in chapter 8, the final stage is to consider the theoretical implications of this research and to try to draw a conclusion about the contribution of this research to knowledge, especially within the fields of education and psychology. These issues are discussed in the closing chapter.

CHAPTER 10

THEORETICAL ISSUES AND CONCLUSION

10.1 Introduction

In general, the theoretical literature discussed in Chapters 2 and 3 suggests that pupils with Down Syndrome will have low self-perceptions, especially when placed in mainstream schools and their self-perceptions will decline with age. Due to the inconsistency between these suggestions and the results of this study, it is necessary to critically discuss the relevance of the theoretical literature to pupils with Down Syndrome. First, the likelihood of Down Syndrome being an aetiologically-specific syndrome will be considered. Second, there will be a discussion of the three theories (i.e., Social Comparison theory, Distinctiveness theory and Group Identity Theory) on which the expectation that pupils with Down Syndrome will have low self-perceptions was based. Finally there will be a discussion of the implications of this research for school placement.

10.2 Aetiologically-specific syndrome

The suggestion that Down Syndrome presents an aetiologically-specific syndrome has implications for the applicability of the instruments used in this study and for the utility of studying pupils with Down Syndrome as a distinctive group. In relation to the former implication, the instruments were chosen on the basis of the specific difficulties believed to be experienced by individuals with Down Syndrome. Because the majority of the sample were able to use either one or both of the instruments, the specific difficulties noted in Chapter 3 appear relevant to pupils with Down Syndrome. However, the sample was heterogeneous in terms of their cognitive, language, attention and memory skills. Furthermore, the instruments were selected with the intention of being applicable for pupils in the sample with the poorest cognitive, language, attention and memory skills. Because the instruments were selected to be appropriate for the least able pupil

of a heterogeneous group, the instruments should be suitable for other pupils with learning difficulties not caused by Down Syndrome.

Although, research has supported the idea that Down Syndrome has an aetiologically-specific profile, the heterogeneity of the sample renders such a profile less meaningful at the level of the individual pupil. This heterogeneity in abilities questions the utility of studying pupils with Down Syndrome as a specific group. However, pupils with Down Syndrome are still distinguishable from other pupils with and without learning difficulties because of the stereotype associated with Down Syndrome. Although this research rejects the validity of the Down Syndrome stereotype, the stereotype is established in society. Furthermore, the impact of others' perceptions on the self, the existence of this stereotype and the relative ease of categorisation, could be argues to justify studying pupils with Down Syndrome as a distinct group.

10.3 Self-perception theories

The Social Comparison Theory (Festinger, 1954) implies that pupils with learning difficulties will experience low self-perceptions when in mainstream school because they are surrounded by more able peers (e.g., Coleman, 1983; Chapman, 1988). Furthermore, the self-perceptions of these pupils are expected to decline with age because, with age, children develop the cognitive capacity for social comparison However, being surrounded by more able peers in mainstream schools did not appear to lower the self-perceptions of pupils with Down Syndrome. Also, the self-perceptions of pupils with Down Syndrome increased, rather than decreased, with age.

The Distinctiveness Theory (McGuire & McGuire, 1987) predicted that pupils with Down Syndrome in mainstream schools would have low self-perceptions because their lower competence and acceptance would distinguish them from their mainstream classmates. This theory is similar to the Social Comparison Theory in that it assumes that people assess themselves in relation to their social context.

In summary, the Social Comparison Theory and Distinctiveness Theory did not predict the self-perceptions of pupils with Down Syndrome. Therefore, it is important to

consider the applicability of these theories to pupils with Down Syndrome. Pupils with learning difficulties may, for example, never develop the cognitive capacity for, or desire to use, social comparisons. Instead of turning to their peers, pupils with Down Syndrome may use an alternative base on which to assess their competence and acceptance, for example, their previous ability. If such self-standards are used, self-perceptions are expected to become more positive with age because, with cognitive development, pupils' abilities improve.

Alternatively, pupils with Down Syndrome could have been using social comparison if they were basing their self-perceptions on something other than achievement. Parent, teacher and observational reports of pupils' competence and acceptance, did not consistently relate to pupils' self-perceptions. Therefore, pupils with Down Syndrome could be employing social comparison to determine their self-perceptions, but may be using a different source of comparison than achievement. Due to their learning difficulties, basing self-perceptions on achievement is likely to lead to low self-perceptions for pupils with Down Syndrome. In order to avoid feelings of incompetence, pupils with Down Syndrome (and possibly other pupils with learning difficulties) may base their self-perceptions on a source of comparison more likely to protect and/or raise self-perceptions. Such sources may include, levels of motivation, effort, perseverance or praise from significant others. Employing sources other than achievement, may protect pupils with Down Syndrome from the prediction of the Social Comparison Theory (i.e., comparing themselves unfavourably with their peers) and from the prediction of the Distinctiveness Theory (i.e., feeling distinctive from their more able peers). To assess the applicability of the Social Comparison and Distinctiveness theories, research is required to ascertain what basis pupils with Down Syndrome use to assess their competence and acceptance.

According to the predictions of the Social Identity Theory (Tajfel & Turner, 1979), all pupils with Down Syndrome are at risk of low self-perceptions because they belong to a group that is devalued by society. The Social Identity Theory is believed to be especially relevant to pupils with Down Syndrome because the distinctive facial

characteristics of people with Down Syndrome ease categorisation (Harris, 1995). Furthermore, the Social Identity Theory implies that due to the stigma attached to special schooling, pupils with Down Syndrome in special schools are at greater risk of low self-perceptions than their counterparts in mainstream school. However, all the pupils in this study had self-perceptions above the central point of the self-perception instruments. Also, pupils in special schools did not have significantly lower self-perceptions than their counterparts in mainstream schools.

   To explain the inconsistency between these findings and the predictions of the Social Identity Theory, it is necessary to consider the assumptions on which the theory is based. Three of these assumptions, noted in Chapter 2, may render the theory inapplicable to pupils with Down Syndrome. First, pupils with Down Syndrome may not be aware they are labelled as Down Syndrome. The case studies revealed that at least some pupils were aware they had 'Down Syndrome' or they were 'different' from other children. However, the parents and/or teachers in studies 1 and 2 felt that some pupils with Down Syndrome were not aware of having Down Syndrome. Second, pupils with Down Syndrome would need to be aware that the label of Down Syndrome and/or special schooling carries with it negative connotations. The majority of parents, who felt their children were aware of having Down Syndrome or being different, did not feel their children had a deep understanding of what it meant to have Down Syndrome. Only one case study pupil (who had high self-perceptions) appeared, on the basis of conversations reported by her mother, to be aware of the negative connotations and stigma associated with Down Syndrome. However, since this pupil had high self-perceptions, her awareness did not result in low self-perceptions. Perhaps, the theory's third assumption did not apply to this pupil and/or to other pupils with Down Syndrome with an awareness of the devalued status accorded to those with Down Syndrome. According to this final assumption, people must consider their membership to the devalued group as salient to their identity. Recent research (for review; see Harris, 1995) suggests that members of excluded groups are less likely to draw on their group membership to form their self-perceptions, in comparison to members of a more

inclusive group. Therefore, even if pupils with Down Syndrome are aware of being members of a devalued group, they may chose not to derive their self-perceptions from this social identity.

The three above-mentioned theories failed to provide an explanation for the high self-perceptions of pupils with Down Syndrome and to predict that school placement would not significantly effect self-perceptions. Due to the heterogeneity of the sample, it is unlikely that any one theory could explain the self-perceptions of all pupils with Down Syndrome. Alternatively, the theories may still apply to certain pupils under certain conditions. Furthermore, the applicability of the theories may vary due to certain pupils factors, such as, the level of pupils' cognitive capacity.

10.4 School placement

I suggest, on the basis of the research findings and research notes, that the self-perceptions of pupils with Down Syndrome were high because, in general, they were placed in the schools capable of meeting their needs, or at least in schools which did not adversely affect their self-perceptions. Pupils with Down Syndrome placed in mainstream schools, like Lucy, tend to be drawn from a more able subsample of pupils with Down Syndrome. As such, these pupils are more likely than pupils in special schools to have the cognitive capacity to realise they are different from their peers without learning difficulties, and that differences exist between special and mainstream schools. Placing more able pupils with Down Syndrome in mainstream school is likely to help them to feel similar to their peers without learning difficulties. According to the Social Identity theory, the self-perceptions of pupils with Down Syndrome in mainstream schools will benefit from belonging to a social group (i.e., their classmates) that is not stigmatised.

Conversely, pupils with Down Syndrome in special schools are likely to be less able than their counterparts in mainstream schools. Less cognitively able pupils may not perceive any differences between special and mainstream schools. If placed in a mainstream school, their self-perceptions may suffer because in comparison to their

classmates they are less able. Therefore, the self-perceptions of pupils with Down Syndrome in special schools are expected to be high because they are surrounded by classmates of similar abilities and are likely to lack awareness of the stigma attached to their social group.

The majority of the pupils in this study experienced both school types. Therefore, experiencing both school types did not appear to lower self-perceptions. Instead, attending different school-types may contribute to high self-perceptions. Pupils who, for example, feel inferior in comparison to their classmates are be provided with additional comparison groups to assess their competence. Pupils with, for example, limited social acceptance are be provided with a wider range of peers within which to establish friendships. Therefore, being placed on the register of a particular school does not, and perhaps should not, preclude pupils experiencing both school types.

At present it not possible to promote special or mainstream schooling for all pupils with Down Syndrome or with learning difficulties. Rather, theoretical discussions concerning school placement may be improved if the appropriateness of both school types is considered for individuals pupil with learning difficulties.

Finally, although the pupils with Down Syndrome in this study had high self-perceptions, one cannot assume that the current educational system is optimal. Two issues need to be considered before conclusions can be drawn about school placement.

First, this research does not support mainstream or special schooling for all pupils with Down Syndrome. Instead, it raises a number of questions. For example, should progress towards integration be stopped if pupils are found to have high self-perceptions in the present school system? Alternatively, since at least the more able pupils with Down Syndrome appear to have high self-perceptions in mainstream schools, should more pupils with Down Syndrome be integrated? To answer these questions further research is required. Before making generalisations about the high self-perceptions of pupils regardless of school placement, it will be necessary to discern whether, and if so how, other self-perceptions (i.e., those not covered by this study) of pupils with Down Syndrome are affected by school placement. Also, investigations into

which factors relate to high self-perceptions in pupils with Down Syndrome should help schools to development of programmes which promote high self-perceptions.

Second, it is important to question whether high self-perceptions are always adaptive. High self-perceptions are assumed to relate to positive characteristics, such as, happiness, and high self-esteem. However, if pupils have unrealistically high self-perceptions, they may face problems on leaving school. A pupil with Down Syndrome who sees him/herself as academically competent, may feel distressed if he/she is, for example, unable to secure a job after leaving school. Instead, of promoting high self-perceptions, schools perhaps should encourage pupils to hold realistic views of their competence and acceptance. However, for some pupils with learning difficulties, holding realistic self-perceptions may result in their having a low self-concept. To avoid this, rather than imposing on pupils with learning difficulties, the priorities promoted by society (e.g., academic success). teachers and parents could encourage pupils to focus their attention on alternative standards on which to assess the self. Rather than academic achievement, pupils with learning difficulties could be encouraged to focus on, for example, the amount of effort and motivation they apply to their work. Furthermore, the importance of achievement in non-academic areas could also be emphasised, such as, artistic skills, creativity, assisting others, sharing and co-operating.

10.5 Conclusion

By way of a conclusion, I would like to note what I see as the four most important achievements of this research. First, a valid and reliable method has been established for assessing the self-perceptions of pupils with Down Syndrome. Such instruments are also likely to be appropriate for pupils with learning difficulties not caused by Down Syndrome. Second, the research has highlighted that pupils with learning difficulties can 'speak for themselves'. They hold, and can express self-perceptions about competence and acceptance. Third, in relation to pupils with Down Syndrome, this research has contributed to dispelling the myth that pupils with Down Syndrome are a homogeneous group. Instead, the individuality of the pupils has been emphasised in a wide range of areas, from their academic, physical and social qualities, through their socialisation experiences, to their personalities. Finally, the results from studies 1 and 2 identified new directions for research by uncovering a number of questions about the self-perceptions of pupils Down Syndrome that remain to be answered.

REFERENCES

Abramovitch, D., Stanhope, L., Pepler, D., & Corter, C. (1987). The influence of Down's Syndrome on sibling interaction. *Journal of Child Psychology and Allied Disciplines, 28, 865 - 879.*

Adler, P. A., & Adler, P. (1993). Ethical issues in self-censorship. In C. M. Renzetti & R. M. Lee (Eds.), *Researching sensitive topics* (pp. 249 - 265). California: Sage.

Ainsworth, M. D. S. (1990). Some considerations regarding theory and assessment relevant to attachments beyond infancy. In M. T. Greenberg, K. Cicchetti & E. M. Cummings (Eds.), *Attachment in the pre-school years: Theory, research and intervention* (pp. 463 - 488). Chicago: University of Chicago Press.

Armstrong, D. (1995). *Power and partnership in education.* London: Routledge.

Aro, H. M., & Palosarri, V. K., (1992). Parental divorce, adolescence and transition to young adulthood: A follow up study. *American Journal of Orthopsychiatry, 62, 421 - 429.*

Atkinson, P., Delamont, S., & Hammersley, M. (1988). Qualitative research traditions: A British response to Jacob. *Review of Educational Research, 58, 231 - 250.*

Atkinson, P., & Hammersley, M. (1994). Ethnography and participant observation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 248 - 261).USA: Sage.

Bachman, J. G., & O' Malley, P. M. (1977). Self-esteem in young men: A longitudinal analysis of the impact of educational and occupational attainment. *Journal of Personality and Social Psychology, 35, 365 - 380.*

Barton, M., Walton, T., & Rowe, D. (1976). Using grid technique with the mentally handicapped. In P. Slater (Ed.), *Explorations of interpersonal space, vol. 1.* (pp. 47 - 68). London: John Wiley & Sons.

Beardsall, L., & Dunn, J. (1992). Adversities in childhood: Siblings' experiences and their relation to self-esteem. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 33, 349 - 359.*

Beeghley, M., & Cicchetti, D. (1987). An organisational approach to symbolic development in children with Down Syndrome. *New Directions for Child-Development, 36, 5 - 29.*

Begley, A. & Lewis, A. (1998). Methodological issues in the assessment of the self-concept of children with Down Syndrome. *Child Psychology & Psychiatry Review, 3, 33 -40.*

Bergen, R. K. (1993). Interviewing survivors of marital rape. In R. M. Lee, & C. M. Renezetti, (1993). *Researching sensitive topics* (pp. 201 - 234). California: Sage.

Bilowsky, D. & Share, J. (1965). The ITPA and Down's syndrome: an exploration study. *American Journal of Mental Deficiency, 70, 78-82.*

Bibby, P. A., Lamb, S. J., Leyden, G., & Wood, P. (1996). Season of birth and gender effects in children attending moderate learning difficulty schools. *British Journal of Educational Psychology, 66, 159 - 168.*

Blatchford, P. (1992). Academic self assessment at 7 and 11 years: Its accuracy and association with ethnic group and sex. *British Journal of Educational Psychology, 62, 35 - 44.*

Blumer, M. (1984). *Sociological research methods (second edition).* London: Macmillan.

Boer, F., Goedhart, A. W., & Treffers, P. D. A. (1992). Siblings and their parents. In F. Boer & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical issues,* (pp. 41 - 53). Hove: Lawrence Erblaum.

Boersma, F. J., Chapman, J. W., & Battle, J. (1979). Academic self-concept change in special education students: Some suggestions for interpreting self-concept scores. *Journal of Special Education, 13, 433 - 442.*

Booth, T. (1981). Educating children with Down's Syndrome in ordinary school. *Early Child Development and Care, 7, 165 - 184.*

Booth, T., & Booth, W. (1996). Sounds of silence: Narrative research with inarticulate subjects. *Disability and Society, 11, 55 - 69.*

Borthwick, C. (1996). Racism, IQ and Down's Syndrome. *Disability and Society, 11, 403 - 410.*

Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory.* London: Routledge

Bowlby, J. (1969). *Attachment and Loss. Vol. 1: Attachment.* London: Hogarth.
Brannen, J. (1992). *Mixing methods: Quantitative and qualitative research.* Aldershot:: Avebury.

Branson, J., Miller, D., & Branson, K. (1988). An obstacle race: A case study of a child's schooling in Australia and England. *Disability, Handicap and Society, 3, 101 - 118.*

Bryman, A. (1988). *Quantity and Quality in social research*. London: Unwin Hyman.

Buhrmester, D. (1992). The developmental courses of sibling and peer relationships. In
F. Boer & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical
issues* (pp. 19 - 41). Hove: Lawrence Erblaum.

Burack, J. A., Hodapp, R. M. & Zigler, E. (1988). Issues in the classification of mental
retardation differentiating among organic aetiologies. *Journal of Child Psychology and
Psychiatry and Allied Disciplines, 29, 765 - 779.*

Burgess, R. G. (1988). *Studies in qualitative methodology: A research annual. Vol. 1:
Conducting qualitative research*. London: JAI Press.

Burns, R. (1982). *Self-concept development and education*. London: Holt, Rinehart &
Winston.

Burns, R. (1979). *The self-concept: in theory, measurement, development and
behaviour*. London: Longman.

Bursuck, W. (1989). A comparison of students with learning disabilities to low achieving
and higher achieving students on three dimensions of social competence. *Journal of
Learning Disabilities, 22, 188 - 193.*

Bury, M. (1996). Disability and the myth and the independent researcher: a reply.
Disability and Society, 11, 111- 113.

Butler, R. J. (1985). Towards an understanding of childhood difficulties. In N. Beail
(Ed.), *Repertory grid technique and personal constructs* (pp. 27 - 46). London: Croom
Helm.

Butler, R., & Marinov-Glassman, D. (1994). The effects of educational placement and grade level on the self-perceptions of low achievers and students with learning disabilities. *Journal of Learning Disabilities, 27, 325 - 334.*

Byrne, B. M., & Shavelson, R. J. (1996). On the structure of the self-concept for pre-, early- and late adolescents: A test of the Shavelson, Hubner and Stanton 1976 model. *Journal of Personality and Social Psychology, 70, 599 - 613.*

Cardoso-Martins, C. & Mervis, C. B. (1989). Mothers' use of substantive deisis and nouns with their children with Down Syndrome. *American Journal of Mental Retardation, 94, 633-637.*

Cardoso-Martins, C. & Mervis, C. B. (1985). Maternal speech to pre-linguistic children with Down Syndrome. *American Journal of Mental deficiency, 89, 451-458.*

Casey, W., Jones, D., Kugler, B., & Watkins, B. (1988). Integration of Down's Syndrome children in the primary school: A longitudinal study of cognitive development and academic attainments. *British Journal of Educational Psychology, 58, 279 - 286.*

Cassidy, J. (1988). Child-mother attachment and the self in six-year-olds. *Child Development, 59, 121 - 134.*

Cattell, R. B. (1962). *Handbook of multivariate experimental Psychology.* Chicago: Rand McNally.

Ceci, S. J., & Bruck, M. (1993). Suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin, 113, 403 - 439.*

Chapman, J. W. (1988). Learning disabled children's self-concepts. *Review of Educational Research, 58, 347 - 371.*

Chappell, A. L. (1994). A question of friendship: Community care and the relationships of people with learning difficulties. *Disability and Society, 9, 419 - 434.*

Charmaz, K. (1995). The body, identity and self: Adapting to impairments. *Sociological Quarterly, 36, 657 - 680.*

Chase-Lansdale, P. L., Cherlin, A. J., & Kiernan, K. K. (1995). The long-term effects of parental divorce on the mental health of young adults: A developmental perspective. *Child Development, 66, 1614 - 1634.*

Chen, X., Rubin, K. H., & Li, D. (1997). Relation between academic achievement and social adjustment: Evidence from Chinese children. *Developmental Psychology, 33, 518 - 525.*

Cicourel, A. V. (1964). *Methods and measurement in sociology.* New York: Free Press.

Cohen, L., & Manion, L. (1994). *Research methods in education (forth edition).* London: Routledge.

Cole, D. A. (1991). Change in self-perceived competence as a function of peer and teacher evaluation. *Developmental Psychology, 27, 682 - 688.*

Coleman, J. M. (1985). Achievement level, social class and the self-concepts of mildly handicapped children. *Journal of Learning Disabilities, 18, 26 - 29.*

Coleman, J. M. (1983). Self-concept and the mildly handicapped: The role of social comparisons. *Journal of Special Education, 17, 37 - 45.*

Coleman, J. M., & Minnett, A. M. (1992). Learning disabilities and social competence: A social ecological perspective. *Exceptional Children, 59, 234 - 246.*

Coleman, J. M., Pullis, M. E., & Minnett, A. M. (1987). Studying mildly handicapped children's adjustment to mainstreaming: A systemic approach. *Remedial and Special Education, 8, 19 - 30.*

Cooley, C. H. (1902). *Human nature and social order.* New York: Scribers.

Coopersmith, S. A. (1967). *The antecedents of self-esteem.* San Francisco: W H Freeman.

Cowan, P. A., Cohn, D. A., Cowan, C. P., & Pearsan, J. L., (1996). Parents' attachment histories and children's externalising and internalising behaviours: Exploring family systems model of linkage. *Journal of Consulting and Clinical Psychology, 64, 53 - 63.*

Cramer, D. (1994). *Introducing statistics for social research. Step-by-step calculations and computer techniques using SPSS.* London: Routledge.

Crocker, C., & Cheeseman, R. R. (1988). The ability of young children to rank themselves for academic ability. *Educational Studies, 14, 105 - 110.*

Crocker, J., & Major, M. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96, 608 - 630.*

Cuckle, H., Nanchahal, K., & Wald, N. (1991). Birth prevalence of Down's Syndrome in England and Wales. *Prenatal Diagnosis, 11, 29 - 34.*

Cuskelly, M., & de Jong, I. (1996). Self-concept of children with Down Syndrome. *Down Syndrome: Research and Practice, 4, 58 - 64.*

Damon, W., & Hart, D. (1988). *Self-understanding in childhood and adolescence.* New York: Cambridge University Press.

Deci, E. L., Hodges, R., Pierson, H. L., & Tomassone, J. (1992). Autonomy and competence as motivational factors in students with learning disabilities and emotional handicaps. *Journal of Learning Disabilities, 25, 457 - 471.*

Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behaviour. *Journal of Personality and Social Psychology, 53, 1024 - 1037.*

Denzin, N. K. (1970). *The research Act.* Chicago: Aldine.

Denzin, N. K., & Lincoln, Y. (1994). *Handbook of Qualitative Research.* California: Sage.

Department of Education and Employment (DfEE, 1998). Statistics for schools in England - January 1998 (provisional). *News, June 1998.*

Department of Education and Employment (DfEE, Oct. 1997). *Excellence for all children. Meeting special educational needs.*

Duda, J. L., Fox, K. R., Biddle, S. J. H. & Armstrong, N. (1992). Children's achievement goals and beliefs about success in sport. *British Journal of Educational Psychology, 62, 313 - 323.*

Dunn, J., & Plomin, R. (1991). Why are siblings so different? The significance of differences in sibling experiences within the family. *Family Process, 30, 271 - 283.*

Dunn, J., Slomkowski, C., & Beardsall, L. (1994). Sibling relationships from the pre-school period through middle childhood and early adolescence. *Developmental Psychology, 30, 315 - 324.*

Dunn, J., Stocker, C., & Plomin, R. (1990). Non-shared experiences within the family: Correlations of behavioural problems in middle childhood. *Developmental and Psychopathology, 2, 113 - 126.*

Dunst, C. J. (1990). Sensorimotor development of infants with Down syndrome. In D Cicchetti & M. Beeghly (1990), *Children with Down Syndrome; a developmental perspective* (pp. 180-230). Cambridge: Cambridge University Press.

Dunst, C. J. (1988). Stage transitioning in the sensorimotor development of Down's syndrome infants. *Journal of Mental Deficiency Research, 32, 405 - 410.*

Dykens, E. M., Hodapp, R. M. & Evans, D. W. (1994). Profiles and development of adaptive behaviour in children with Down syndrome. *American Journal on Mental Retardation, 98, 580 - 587.*

Eder, D. (1983). Ability grouping and students' academic self-concepts: A case study. *The Elementary School Journal, 84, 149 - 161.*

Edwards, A. (1988). A child of four could tell you: A study of identity in the nursery school using situations grid. In F. Fransella & L. Thomas (Eds.) *Experimenting with personal construct psychology* (pp. 232 - 244). London: Kegan Paul

Edwards, R. (1993). An education in interviewing: Placing the researcher and the researched. In R. M. Lee & C. M. Renezetti (Eds.). *Researching sensitive topics* (pp 181 - 196). California: Sage.

Eiser, C., Eiser, J. R., & Havermans, T. (1994). The measurement of self-esteem: practical and theoretical considerations. *Personality and Individual Differences, 18, 429 - 432.*

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54, 5 - 12.*

Eshel, Y., Katz, M., Gilat, S., & Nagler, C. (1994). Mainstreamed or self-contained classes for students with a mild learning disability: The case of Israel. *International Journal of Disability, Development and Education, 41, 185 - 200.*

Festinger, L. (1954). A theory of social comparison. *Human Relations, 7, 117 - 140.*

Fielding, N. (1993). Ethnography. In N. Gilbert (Ed.). *Researching social life (pp. 154 - 171)..* London: Sage.

Finlay, W. M. L., & Lyons, E. (1998). Social identity and people with learning difficulties: Implications for self-advocacy groups. *Disability and Society, 13, 37 - 51..*

Fine, M., & Asch, A. (1988). Disability beyond stigma Social interaction, discrimination and activism. *Journal of Social Issues, 44, 3 - 21.*

Flink, C., Boggiano, A. K., Main, D. S., Barrett, M., & Katz, P. (1992). Children's achievement-related behaviours: The role of extrinsic and intrinsic motivational orientation. In A. K. Boggiano & T. S. Pittman (Eds.). *Achievement and motivation. A social- developmental perspective*. New York: Cambridge University Press.

Ford, S. (1996). Learning difficulties. In G. Hales (Ed.) *Beyond disability towards an enabling society* (pp. 57 - 79) London: Sage.

Fowler, A. E. (1990). Language abilities in children with Down syndrome: Evidence for a specific syntactic delay. In D Cicchetti & M. Beeghly (Eds.), *Children with Down Syndrome; a developmental perspective* (pp. 303-328) Cambridge: Cambridge University Press.

Fowler, A. E., Gelman, R., & Gleitman, L. R. (1994). The course of language learning in children with Down Syndrome. In H. Tager-Flusberg (Ed.), *Constraints on language acquisition: Studies of atypical children* (pp. 91 - 140). NJ: Lawrence Erblaum Associates.

Fox, P., & Norwich, B. (1992). Assessing the self-perceptions of young adults with severe learning difficulties. *European Journal of Special Needs Education, 7, 193 - 203.*

Fransella, F., & Bannister, D. (1977). *A manual for repertory grid technique*. London: Academic Press.

French, S., & Swain, J. (1997). Young disabled people. In J. Roche & S. Tucker (Eds.), *Youth in society: Contemporary theory, policy and practice* (pp. 199 - 206). Milton Keynes: Open University Press.

Frey, K. S., & Ruble, D. N. (1985). What children say when the teacher is not around: Conflicting goals in social comparison and performance assessment in the classroom. *Journal of Personality and Social Psychology, 48, 550 - 562.*

Fulcher, G. (1995). Excommunicating the severely disabled: Struggles, policy and researching. In P. Clough & L. Barton (Eds.), *Making difficulties: Research and the construction of special educational needs* (pp. 6 - 24). London: Paul Chapman.

Gath, A. (1993). Changes that occur in families as children with intellectual disability grow up. *International Journal of Disability, Development and Education, 40, 167 - 174.*

Gath, A. (1992). The brothers and sisters of mentally retarded children. In F. Boer & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical issues,* (pp. 101 - 108). Hove: Lawrence Erblaum.

Gibson, D. (1978). *Down's Syndrome; the psychology of mongolism.* Cambridge: Cambridge University Press.

Gibson, D. (1966). In D. Gibson (1978). Down's Syndrome: The psychology of mongolism. Cambridge: Cambridge University Press.

Glaser, B. G. (1978). *Theoretical sensitivities: Advances in the methodology of grounded theory.* Mill Valley, Calif: The Sociological Press.

Glaser, B. G., & Strauss, A. C. (1968). The discovery of grounded theory: Strategies for Qualitative research. London: Weidenfeld & Nicolson.

Goodley, D. (1996). Tales of hidden lives: a critical examination of life history research with people with learning difficulties. *Disability and Society, 11, 333 - 348.*

Green, J. M., Dennis, J. & Bennets, L. A. (1989). Attention disorders in a group of young Down syndrome children. *Journal of Mental Deficiency Research, 33,105-122.*

Greenhalgh, P. (1994) *Emotional growth and learning.* London: Routledge.

Guralnick, M. J. (1986). The peer relations of younger handicapped and non-handicapped children. In P. S. Strain, M. J. Guralnick & H. M. Walker (Eds.), Children's social behaviour: Development, Assessment and Modification (pp. 93 - 140). Orlando: Academic Press.

Grolnick, W. S., & Ryan, R. M. (1990). Self-perceptions, motivation and adjustment in children with learning disabilities: A multiple group comparison study. *Journal of Learning Disabilities, 23, 177 - 184.*

Hammersley, M. (1998). *Case study method: A brief introduction and bibliographical guide.* Paper presented at the 7th international conference on Case Study Research in Education, held by CEDAR at the University of Warwick, March, 1998.

Hammersley, M. (1992) *What's wrong with Ethnography?* London: Routledge.

Harris, P. (1995). Who am I? Concepts of disability and their implications for people with learning difficulties. *Disability and Society, 10, 341 - 351.*

Harter, S. (1992). The relationship between perceived competence, affect, and motivational orientation within the classroom: processes and patterns of change. In A. K. Boggiano & T. S. Pittman (Eds.). *Achievement and motivation: A social developmental perspective* (pp. 77 - 114). Cambridge: Cambridge University Press.

Harter, S. (1990). Developmental differences in the nature of self-representations: Implications for the understanding, assessment and treatment of maladapative behaviour. *Cognitive Therapy and Research, 14, 113 - 142.*

Harter, S. (1989). Causes, correlates and the functional role of global self-worth: A life span perspective. In J. Kolligan & R. Sternberg (Eds.), *Perceptions of competence and incompetence across the life span* (pp 67 - 97). New-Haven: Yale University Press.

Harter, S. (1988). The construction and conservation of the self: James and Cooley revisited. In D. K. Lapsley and F. C. Powers (Eds.), *Self, Ego and Identity* (pp. 43 - 70). New York: Springer-Verlag.

Harter, S. (1985). *Manual for the self-perception profile for children.* Denver: University of Denver.

Harter, S. (1982). The scale of perceived competence for children. *Child Development, 53, 87 - 97.*

Harter, S., & Pike, R. (1984). The pictorial scale of perceived competence and acceptance for young children. *Child Development, 55, 1969 - 1982.*

Harter, S., & Pike, R. (1981). *The pictorial scale of perceived competence and acceptance for young children. Plates - First and second Grades.* University of Denver.

Hastrup, K., & Elsass, P. (1990). Anthropological Advocacy. *Current Anthropology, 31, 301 - 311.*

Hockey, J. (1993). Research methods - researching peers and familiar settings. In R. G. Burgess (Ed.). *Research methods* (pp. 199 - 225). Walton-on-Thames: Nelson.

Hodapp, R. M. & Dykens, E. M. (1994). Mental Retardation's Two Cultures of Behavioural Research. *American Journal on Mental Retardation, 98, 675 - 687.*

Hodapp, R. M., Leckman, J. F., Dykens, E. M., Sparrow, S. S., Zelinsky, D. G. & Ort, S. I. (1992). K-ABC profiles of children with Fragile-X syndrome, Down syndrome and non-specific mental retardation. *American Journal on Mental Retardation, 97, 39 - 46.*

Hoffman. L. W. (1991). The influence of the family environment on personality: Accounting for sibling differences. *Psychological Bulletin, 110, 187 - 203.*

Howes, C., Matheson, C. C., & Hamilton, C. E. (1994). Maternal, teacher and child care history. Correlates of children's relationships with peers. *Child Development, 65, 264 - 273.*

Hulbert, C., & Atkinson, D. (1987). 'On my way out, and after'. *British Journal of Mental Subnormality, 33, 109 - 116.*

Hurst, M., & Baldwi, S. (1994). *Unequal Opportunities: Growing up Disabled.* London: HMSO.

James, W. (1890). *The principles of psychology.* New York: Holt.

Jones, L., and Smart, T. (1995). Confidence in mathematics: a gender issue? *Gender and Education, 7, 157 - 166.*

Joseph, S, Markus, H. R., & Tafarodi, R. W. (1992). Gender and self-esteem. *Journal of Personality and Social Psychology, 63, 391 - 402.*

233

Kelly, G. A. (1955). *The psychology of personal constructs*. New York: W W Norton.

Kernan, K. T. (1990) Comprehension of syntactically indicated sequences by Down's syndrome and other mentally retarded adults. *Journal of Mental Deficiency Research, 34,169 - 178.*

Klein, W. M., & Kunda, Z. (1993). Maintaining self-serving social comparisons: Biased reconstruction of one's past behaviour. *Journal of Personality and Social Psychology, 29, 732 - 739.*

LaGreca, A. M., & Stone, W. L. (1990). LD status and achievement: Confounding variables in the study of children's social status, self-esteem and behavioural functioning. *Journal of Learning disabilities, 23, 483 - 490.*

Landry, S. H., & Chapieski, M. L. (1989). Joint attention and infant toy exploration: Effects of Down Syndrome and prematurity. *Child Development, 60, 103 - 118.*

Landry, S. H., & Chapieski, M. L. (1990). Joint attention of 6 month old Down's Syndrome and pre-term infants: Attention to toys and mothers. *American Journal of Mental Retardation 94, 488 - 498.*

Lee, R. M. (1993). *Doing researching on sensitive topics*. London: Sage.

Lee, R. M., & Renezetti, C. M. (1993). *Researching sensitive topics*. California: Sage.

Leifer, J. S. & Lewis, M. (1984). Acquisition of conversational response skills by young children with Down syndrome and non-retarded young children. *American Journal of Mental Deficiency, 88, 610 - 618.*

234

Leo, E. L., & Galloway, D. (1996). Evaluating research on motivation: Generating more heat than light? *Evaluation and Research in Education, 10, 35 - 47.*

Leondari, A. (1993). Comparability of self-concept among normal achievers, low achievers and children with learning difficulties. *Educational Studies, 19, 357 - 371.*

Lewis, A. (1995). *Children's understanding of disability.* London: Routledge.

Lewis, A. (1992). Group interviews as a research tool. *British Journal of Educational Research, 18, 413 - 421.*

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry.* Beverly Hill, CA: Sage.

Lindroos, M. (1995). The production of 'girl' in an educational setting. *Gender and Education, 7, 143 - 155.*

Lippman, A., & Brunger, F. (1991). Constructing Down Syndrome: Texts as informants. *Sante, Culture Health, 8, 109 - 131.*

Limbrock, G. J., Fisher-Brandies, H., & Avalle, C. (1991). Castillo-Morales' orofacial therapy: Treatment of 67 children with Down Syndrome. *Developmental Medicine and Child Neurology, 33, 296 - 303.*

Lintunen, T., Leskinen, E., Oinonen, M., Salinto, M., & Rahkila, P. (1995). Change, reliability and stability in self-perceptions in early adolescents: A four year follow-up study. *International Journal of Behavioural Development, 18, 351 - 364.*

Lloyd, M., Preston-shoot, M., Temple, B., & Wuu, R. (1996). Whose project is it anyway? Sharing and shaping the research and development agenda. *Disability and Society, 11, 301 - 315.*

Lomax, P. (1978). The attitudes of girls with varying degrees of school adjustment to different aspects of their school experience. *Educational Review, 30, 117 - 124.*

Long, B. H., & Henderson, E. H., & Ziller, R. C. (1967). Developmental changes in the self-concept during middle childhood. *Merrill-Palmer Quarterly, 13, 201 - 215.*

Lynas, W. (1986). *Integrating the handicapped into ordinary schools: A study of hearing impaired pupils.* Kent: Croom Helm.

McCarthy, J. D., & Hoge, D. R. (1982). Analysis of age effects in longitudinal studies of adolescent self-esteem. *Developmental Psychology, 14, 372 - 379.*

McGuire, W. J., & McGuire, C. V. (1987). Developmental trends and gender differences in the subjective experience of self. In T. Honess & K. Yardley (Eds.), *Self and identity* (pp. 134 - 158). London: Routledge and Kegan Paul.

McHale, S. M., & Harris, V. S. (1992). Children's experiences with disabled and non-disabled siblings: Links with personal adjustment and relationship evaluations. In F. Boer & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical issues* (pp. 83 - 100). Hove: Lawrence Erblaum.

Macpherson, I, & Brooker, R. (1998). *Case study research: Some principles for practice in the contemporary world of qualitative research.* Paper presented at the 7th international conference on Case Study Research in Education, held by CEDAR at the University of Warwick, March, 1998.

Madden, N. A., & Slavin, R. E. (1983). Mainstreaming students with mild mental handicaps: Academic and social outcomes. *Review of Educational Research, 53, 519 - 569.*

Maehr, M. L., & Nicholls, J. G. (1980). Culture and achievement motivation: a second look. In N. L. Warren (Ed.), *Studies in cross-cultural psychology vol. 3* (pp. 221 - 267). San Dieago: Academic Press.

Maras, P., & Brown, R. (1996). Effects of contact on children's attitudes towards disability: A longitudinal Study. *Journal of Applied Social Psychology, 26, 2113 - 2134.*

Marcell, M. M., & Cohen, S. (1992). Hearing abilities of Down Syndrome and other mentally handicapped adolescents. *Research in Developmental Disabilities, 13, 533 - 551.*

Margalit, M., Raviv, A., & Pahn-Steinmetz, N. (1988). Social competence of learning disabled children: Cognitive and emotional aspects. *Exceptional Child, 35, 179 - 189.*

Martlew, M., & Hodson, J. (1991). Children with mild learning difficulties in an integrated and in a special school: Comparisons of behaviour, teasing and teachers' attitudes. *British Journal of Educational Psychology, 61, 355 - 369.*

Marsh, H. W. (1993). The multidimensional structure of the academic self-concept: Invariance across age and gender. *American Educational Research Journal, 30, 841 - 860.*

Marsh, H. W. (1989). Age and sex effects in multiple dimensions of self-concept: Preadolescence to early adulthood. *Journal of Educational Psychology, 76, 940 - 956.*

Marsh, H. W. (1987). The hierarchical structure of the self-concept and the application of hierarchical confirmatory factor analysis. *Journal of Educational Measurement, 24, 27 - 39.*

Marsh, H. W., Bryne, B. M., & Shavelson, R. (1988). A multifaceted academic self-concept: Its hierarchical structure and its relation to academic achievement. *Journal of Educational Psychology, 83, 366 - 380.*

Marsh, H. W., Hey, J., Roche, L. A., & Perry, C. (1997). Structure of physical self-concept: Elite athletes and physical education students. *Journal of Educational Psychology, 89, 369 - 380.*

Marsh, H. W., & Holmes, I. W. (1990). Multidimensional self-concepts - Construct validation of responses by children. *American Educational Research Journal, 27, 89 - 117.*

Marsh, H. W., Smith, I. D., Barnes, C. J., & Butler, S. (1983). Self-concept: Reliability, stability, dimensionality, validity and the measurement of change. *Journal of Educational Psychology, 75, 772 - 790.*

Marshall, H. H., & Weinstein, R. S. (1984). Classroom factors affecting students' self-evaluations: An international model. *Review of Educational Research, 54, 301 - 325.*

Martin, K. A. (1996). *Puberty, sexuality and the self.* London: Routledge.

May, T. (1993). *Social Research: Issues, methods and processes.* Milton Keynes: Open University Press.

Mead, G. H. (1934). *Mind, self and Society*. Chicago: University of Chicago Press.

Mervis, C. B. (1990). Early conceptual development of children with Down Syndrome. In D Cicchetti & M. Beeghly (1990). *Children with Down Syndrome; a developmental perspective*. (pp. 252-301). Cambridge: Cambridge University Press.

Miller, J. F. (1992). Lexical development in young children with Down syndrome. In R. S. Chapman (1992). *Processes in Language acquisition and Disorders*. St. Louis: Mosby Year Book.

Mittler, P. (1991). Competence and consent in people with a mental handicap. In M. Brazier & M. Lobjoit (Eds.), *Protesting the vulnerable: Autonomy and consent in health care* (pp. 22 - 33). London: Routledge.

Molina, S. & Perez, A. A. (1993). Cognitive processes in the children with Down syndrome. *Developmental, Disabilities Bulletin, 21, 21-35.*

Mooney, A., Creeser, R., & Blatchford, P. (1991). Children's views on teasing and fighting in junior schools. *Educational Research, 33, 103 - 112.*

Montgomery, M. S. (1994). Self-concept and children with learning disabilities; Observer-child concordance across six context-dependent domains. *Journal of Learning Disabilities, 27, 254 - 262.*

Morvitz, E., & W. Motta (1992). Predictors of self-esteem: The roles of parent-child perceptions, achievement and class placement. *Journal of Learning Disabilities, 25, 72 - 80.*

Mundry, R., & Fischer, J. (1998). Use of statistical programs for non-parametric tests of small samples often leads to incorrect P values: Examples from animal behaviour. *Animal Behaviour, 56, 256 - 259.*

Nabuzoka, D., & Smith, P. K. (1993). Sociometric status and social behaviour of children with and without learning difficulties. *Journal of Child Psychology and Psychiatry, 34, 1435 - 1448.*

Nadel, L. (1988). The Psychobiology of Down Syndrome. Cambridge: The MIT Press.

Nicholls, J. G. (1978). The development of the concepts of effort, ability, perception of academic attainment, and the understanding that difficult tasks require more ability. *Child Development, 49, 800 - 814.*

Norwich, B. (1997). Exploring the perspectives of adolescents with moderate learning difficulties on their special schooling and themselves: stigma and self-perceptions. *European Journal of Special Needs Education, 12, 38 - 53.*

Oakley, A. (1981). Interviewing women: A contradiction in terms. In H. Roberts (Ed.), *Doing feminist research* (pp. 30 - 61). London: Routledge, Kegan & Paul.

Oliver, C. (1986). Self-concept assessment: A case study. *Mental Handicap, 14, 24 - 25.*

Oliver, M. (1992). Changing the social relations of research production? *Disability, Handicap and society, 7, 101 - 153.*

Osborne, R. E. (1996). *Self: an eclectic approach.* London: Allyn & Bacon.

Oxford Tree Reading Scheme (1996). Oxford: Oxford University Press.

Petley, K. (1994). An investigation into the experiences of parents and head teachers involved in the integration of primary aged children with Down's Syndrome into mainstream school. *Down Syndrome: Research and Practice, 2, 91 - 96.*

Pollard, A. (1994). Pupils' learning, identity, and social context: the case of Mary. *International Studies of Sociology of Education, 4, 97 - 119.*

Priel, B., & Leshem, T. (1990). Self-perceptions of first- and second-grade children with learning disabilities. *Journal of learning disabilities, 23, 637 - 642.*

Pueschel, S. M. (1988). Visual and Auditory Processing in Children with Down Syndrome. In L. Nadel. (Eds.). *The Psychobiology of Down Syndrome* (pp. 199-216). Cambridge: The MIT Press.

Pueschel, S. M., Bernier, J. C., & Pezzullo, J. C. (1991). Behavioural observations in children with Down's Syndrome. *Journal of Mental Deficiency Research, 35, 502 - 511.*

Pueschel, S. M., Monterio, L. A., Erickson, M. (1986). Parents' and Physicians' perceptions of plastic surgery in children with Down's Syndrome. *Journal of Mental Deficiency Research, 30, 71- 79.*

Purkey, W. W. (1970). *Self-concept and school achievement.* Englewood Cliffs, NJ: Prentice.

Ravenette, A. T. (1968). *Grid techniques with children: Three methods of grid analysis.* Newham: Unpublished manuscript.

241

Raviv, D., & Stone, C. A. (1991). Individual differences in the self-image of adolescents with learning disabilities: The role of severity, time of diagnosis, and parental perceptions. *Journal of learning Disabilities, 24, 602 - 611: 629.*

Renick, M. J., (1986). as cited by S. Harter (1992). The relationship between perceived competence, affect, and motivational orientation within the classroom: processes and patterns of change. In A. K. Boggiano & T. S. Pittman (Eds.). *Achievement and motivation: A social developmental perspective* (pp. 77 - 114). Cambridge: Cambridge University Press.

Renick, M. J., & Harter, S. (1989). Impact of social comparisons on the developing self-perceptions of learning disabled students. *Journal of Educational Psychology, 81, 631 - 638.*

Richardson, S. A., Koller, H., & Katz, M. (1985). Appearance and mental retardation: Some first steps in the development and application of a measure. *American Journal of Mental Deficiency, 89, 475 - 484.*

Riddell, S., Wilkinson, H., & Baron, S. (1998). *From emancipatory research to focus group: people with learning difficulties and the research process.* Paper presented at the conference on Social Justice Issues, at University of Warwick.

Rohr, A. & Burr, D. B. (1978). Etiological differences in patterns of psycholinguistic development of children of IQ 30 to 60. *American Journal of Mental Deficiency, 82, 549 - 553.*

Rondal, J. A. (1988). Down's Syndrome. In D. Bishop & K. Mogford (Eds.), *Language development in exceptional circumstances* (pp. 593 - 624). London: Churchhill Livingstone.

Rosenberg, M. (1990). The self-concept: A social product and social force. In M. Rosenberg & R. H. Turner (Eds.) *Social psychology: Sociological perspectives* (pp 593-624). USA: Transaction Publishers.

Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.

Rosenholtz, S. J., & Simpson, C. (1984). The formation of ability conceptions: Developmental trends or social construction? *Review of Educational Research, 54*. 31 - 63.

Rosenthal, J., & Jacobson, L. F. (1968). *Pygmalion in the classroom*. New York: Holt, Rinehart & Winston.

Rosin, M., Swift, E. & Bless, D. (1987). In L. Nadel. (1988). *The Psychobiology of Down Syndrome*. Cambridge: The MIT Press.

Ruble, D. N., Bogganio, A. K., Feldman, N. S. & Loebl, J. H. (1980). Developmental analysis of the role of social comparison in self-evaluation. *Developmental Psychology, 16, 105 - 115*.

Rubovits, P.C., & Maehr, M. L. (1971). Pygmalion analysed: Towards as explanation of the Rosenthal-Jacobson findings. *Journal of Personality and Social Psychology, 19, 197 - 203*.

Ruskin, E. M., Kasari, C., Mundy, P. & Sigman, M. (1994). Attention to people and toys during social and object mastery in children with Down Syndrome. *American Journal of Mental Retardation, 99, 103-111*.

Ryan, R. M., Connell, J. P., & Grolnick, W. S. (1992). When achievement is *not* intrinsically motivated: a theory of internalisation and self-regulation in school. In A. K. Boggiano & T. S. Pittman (Eds.). *Achievement and motivation: A social developmental perspective* (pp. 167 - 188). Cambridge: Cambridge University Press.

Rynders, J. E., & Horrobin, J. M. (1980). Educational Provision for young children with Down Syndrome. In J. Gottlieb (Ed.), *Educating Mentally Retarded persons in the mainstream*. Baltimore: University Park Press.

Sabsay, S., & Kernan, K. T. (1993). On the nature of language impairment in Down Syndrome. *Topics in Language Disorders, 13, 20 - 35.*

Salmon, P. (1976). Grid measures with child subjects. In P. Slater (Ed.), *Explorations of interpersonal space, vol. 1* (pp. 13 - 47). London: John Wiley and Sons.

Shulman, S., Margalit, M., Gadish, O., & Stuchiner, N. (1990). The family system of moderately mentally retarded children. *Journal of Mental Deficiency Research, 34, 341 - 350.*

Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. USA: Sage.

Shakespeare, T. (1996). Rules of engagement: doing disability research. *Disability and Society, 11, 115 - 121.*

Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Reviews of Educational Research, 46, 407 - 441.*

Shavelson, R. J., & Marsh, H. W. (1985). Self-concept: It's multifaceted, hierarchical structure. *Educational Psychologist, 20, 197 - 123.*

Shepperdson, B. (1988). *Growing up with Down's Syndrome*. London: Cassell Educational Press.

Siegal, S., & Castellan, N. J. (1988). *Non-parametric statistics for the behavioural sciences (second edition)*. New York: McGraw-Hill.

Sigelman, C. K., Budd, E. C., Winer, J. L., Schoenrock, C. J., & Martin, P. W., (1982). Evaluating alternative techniques of questioning mentally retarded persons. *American Journal of Mental Deficiency, 86, 511 - 518*.

Silverstein, A (1982). In R. M. Hodapp & E. Zigler (1990). Applying the Developmental perspective to individuals with Down Syndrome. In D Cicchetti & M. Beeghly (Eds.). *Children with Down Syndrome; a developmental perspective* (pp. 1 - 28). Cambridge: Cambridge University Press.

Silon, E. L., & Harter, S. (1985). Assessment of perceived competence, motivational orientation and anxiety in segregated and mainstreamed educable mentally retarded children. *Journal of Educational Psychology, 77, 217 - 230.*.

Sletta, O., Valas, H, Skaalvik, E., & Sobstad, F. (1996). Peer relations, loneliness and self-perceptions in school-aged children. *British Journal of Educational Psychology, 66, 431 - 445*.

Sloper, P., Cunningham, C., Turner, S., & Knussed, C. (1990). Social life of school children with Down's Syndrome. *Child: Care, Health and Development, 16, 235 - 251*.

Snart, F., O'Grady, M. & Das, J. P. (1982). Cognitive Processing by subgroups of moderately mentally retarded children. *American Journal of Mental deficiency, 86, 465-472.*

Soder, M. (1989). Disability as a social construct: the labelling approach revisited. *European Journal of Special Educational Needs, 4, 117 - 129.*

Stake, R. E. (1995). *The art of case study research.* London: Sage.

Stalker, K. (1998). Some ethical and methodological issues in research with people with learning difficulties. *Disability and Society, 13, 5 - 19.*

Stratford, B. (1994). Down Syndrome is for life. *International Journal of Disability, Development and Education, 41, 3 - 13.*

Stratford, B. & Gunn, P. (1996). *New approaches to Down Syndrome.* London: Cassell.

Strauss, R. P., Feuerstein, R., Mintzker, Y., Rand, Y., & Wexler, M-R. (1989). Ordinary faces? Down Syndrome, facial surgery, active modification and self-perceptions. *American Journal of Mental Retardation, 94, 115 - 118.*

Swain, J., Heyman, B., & Gillman, M.(1998). Public research, private concerns: Ethical issues in the use of open-ended interviews with people who have learning difficulties. *Disability and Society, 13, 21 - 26.*

Sylva, K., Roy, C., & Painter, M. (1980). *Childwatching at playgroup and nursery school.* London: Grant McIntyre.

Szivos, S. E. (1993). Social comparisons, stigma and mainstreaming: The self of young adults with a mild mental handicap. *Mental Handicap Research, 6, 217 - 236*.

Szivos, S. E., & Griffiths, E. (1990). Group processes involves in coming to terms with a mentally retarded identity. *Mental Retardation, 28, 333 - 341*.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In S. Worchel & W. G. Austin (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33 - 48). Monterey: Brooks/Cole.

The New Way Reading Scheme (1992). London: Nelson

Thompson, D., Whitney, I., & Smith, P. K. (1994), Bullying of children with special needs in mainstream schools. *Support for Learning, 9, 103 - 106*.

Thomson, G. O. B., Ward, K. M., & Wishart, J. G. (1995). The transition to adulthood for children with Down's Syndrome. *Disability & Society, 10, 325 - 340*.

Tice, D. M., Butler, J. L., Muraven, M. B., & Stillwell, A. M. (1995). When modesty prevails: Differential favourability of self-presentation to friends and strangers. *Journal of Personality and Social Psychology, 69, 1120 - 1138*.

Troyna, B. (1994). Blind faith? Empowerment and educational research. *International Studies in sociology of Education, 4, 3 - 24*.

Vamhagen, C. K., Das, J. P. & Vamhagen, S. (1987). Auditory and visual memory span: cognitive processing by TMR individuals with Down syndrome or other aetiologies. *American Journal of Mental Deficiency, 91, 398 - 405*.

Verschueren, K., Marcoen, A., & Schoefs, V. (1996). The internal working model of the self; Attachment, and competence in five-year-olds. *Child Development, 67, 2493 - 2511.*

Vincent, C., & Warren, S. (1998). '*This won't take long ...' Ethics, interviewing and diversity.* Paper presented at the 7th international conference on Case Study Research in Education, held by CEDAR at the University of Warwick, March, 1998.

Vogel, S. A. (1990). Gender differences in intelligence, language, visual-motor abilities, and academic achievement in students with learning disabilities: A review of the literature. *Journal of Learning Disabilities, 23, 44 - 52.*

Wade, B. & Moore, M. (1993). The test's the real thing: Viewpoints of students with special educational needs. *Educational Studies, 19, 181 - 191.*

Weiss, M. R., & Duncan, S. C. (1992). The relationship between physical competence and peer acceptance in the context of children's sports participation. *Journal of Sport and Exercise Psychology, 14, 177 - 191.*

Weiss, M. R., Ebbeck, V., & Horn, T. S. (1997). Children's self-perceptions and sources of physical competence information: A cluster analysis. *Journal of Sport and Exercise Psychology, 14, 177 - 191.*

Wentzel, K. R., & Asher, S. R. (1995). The academic lives of neglected, rejected, popular and controversial children. *Child Development, 66, 754 - 763.*

Whitney, I., Smith, P. K., & Thompson, D. (1994). Bullying and children with special educational needs. In P. K. Smith & S. Sharp (Eds.), *School Bullying: Insights and perspectives* (pp. 213 - 240). London: Routledge

Wigfield, A., Eccles, J. S., MacIver, D., Reuman, D. A., & Midgley, C. (1991). Transitions during early adolescence: Changes in children's domain-specific self-perceptions and general self-esteem across the transition to junior high school. *Developmental Psychology, 27, 552 - 565.*

Williams, L., & Gill, D. L. (1995). The role of perceived competence in the motivation of physical activity. *Journal of Sport and Exercise Psychology, 17, 363 - 378.*

Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin, 90, 245 - 271.*

Wishart, J. G., & Duffy, L. (1990). Instability of performance on cognitive tests in infants and young children with Down's Syndrome. *British Journal of Educational Psychology, 59, 10 - 22.*

Wylie, R. (1979). *The self concept.* Lincoln: University of Nebraska Press.

Zarb, G. (1992). On the road to Damascus; first steps towards changing the relations of the research production. *Disability, Handicap and Society, 7, 125 - 138.*

Zigler, E., & Hodapp, R. M. (1991). Behavioural functioning in individuals with mental retardation. *Annual Review of Psychology, 42, 29 - 50.*

Ziller, R. C. (1973). *The social self.* New York: Pergamon.

APPENDICES

APPENDIX 1

TIME LINE

Below is a time line depicting the sequence in which the pilot and mains studies were
carried out

Date and duration of study	Description of study
15th May to 11th June 1996	Pilot study 1: Testing the repertory grid
1st October to 16th October 1996	Pilot study 2: Testing the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1984) and the Situations Grid.
4th January - 9th May 1997	Study 1: working with 96 pupils in special and mainstream schools
20th May - 6th August 1997	Study 2: interviewing and observing pupils, interviewing teachers and parents

APPENDIX 2

<u>LETTERS OF PERMISSION</u>

Below are the letters sent to parents, schools, the Down Syndrome Association and local educational authorities (sent if requested by the headteacher), to request permission for working with pupils in study 1.

2.1 <u>Letter sent to parents</u>

Researcher's address

and contact number

Dear Parent or Guardian,

I am being sponsored by the Down's Syndrome Association to study the aspirations and perceptions of children and young people with Down's Syndrome. I am a second year PhD student carrying out this study at the University of Warwick. I am particularly interested in the field of special needs because my sister has special needs. I am carrying out my research because I would like to gain an insight into how children with Down's Syndrome see themselves and feel about themselves while they are at school.

I planning to work with a large number of children and young people with Down's Syndrome, between the ages of 8 and 16 years living in the Midlands area. I want to work with both boys and girls, and with children in special schools and/or mainstream schools. I expect to carry out my data collection between January and May 1997. This time span should enable me to arrange a time convenient for your child and his or her school. I am hoping that you will be able to support this work by allowing me to work with your child.

My research consists of asking children and young people with Down's Syndrome a number of questions about how they see themselves and feel about themselves. I am

studying children with Down's Syndrome as a group because I am being sponsored by the Down's Syndrome Association. I will not be asking the children anything about Down's Syndrome, because I am not researching whether children identify themselves as Down's Syndrome. I am interested only in how the children view themselves academically, socially and athletically. The questions that I ask are very simple to understand and most of them require a non-verbal response (e.g., posting a picture into a post-box and pointing to the relevant picture). I will need to visit each child at his or her school on at least two occasions. Each visit will take between 10 to 15 minutes. Before I work with each child I will explain to him or her what we will be doing together, and ask him or her if he or she is willing to help me with my work. I think it is important that I obtain each child's consent as well as the consent of his or her parents and school.

Please do not hesitate to contact me at the above number and/or address if you would like further information about me or my research. I would be very grateful if you would be willing to allow your child to participate in my study. I am happy to share with you any findings in relation to your child and the overall conclusions. Please would you complete the consent form at the end of this letter to indicate whether you are willing to allow your child to participate in this research. Please return the completed form to your child's School.

Thank you, and I hope that you will give consent for me to work with your child.

Yours sincerely,

Amanda Begley.

CONSENT FORM

Please would you tick the box above the statement with which you agree;

■ I am willing to allow my child to participate in the research being carried out by Ms. Amanda Begley

■ I am NOT willing to allow my child to participate in the research being carried out by Ms. Amanda Begley

Your child's name...

Parent's or Guardian's
Signature..

2.2 Letter of consent to participate in the research written by Lucy

Dear Amanda,

    I have Down's syndrome and am 14-year old. My mum has given me your letter to read. I can tell you about Down's syndrome and will not mind being part in your research.

                  Your sincerely,

                      [Name covered]

[NB The address and name have been covered to protect Lucy's anonymity]

2.2 Letter of consent to participate in the research written by Lucy

Dear Amanda,

I have Down's syndrome and am 14 year old. My mum has given me your letter to read. I can tell you about Down's syndrome and will not mind being part in your research.

your sincerely,

[Name covered]

[NB. The address and name have been covered to protect Lucy's anonymity]

<u>**2.3 Letter sent to schools**</u>

Researcher's address

and contact number

Dear *Headteachers' name*,

I am writing to give you further information about my research project. This is the work which we spoke briefly about on *date* I am being sponsored by the Down's Syndrome Association to study the aspirations and perceptions of children and young persons with Down's Syndrome. I am a second year PhD student carrying out this research through the University of Warwick. My supervisor is Dr Ann Lewis. I am interested in gaining an insight into how children with Down's syndrome feel about themselves. I am particularly interested in working with pupils with special needs because my sister attended a special school until she was 19 years old, and now attends a centre for adults with special needs.

I planning to work with a large number of children and young persons with Down's Syndrome between the ages of 8 and 16 years, living in the Midlands area. I want to work with both boys and girls, and with children in special schools and/or mainstream schools.

My research consists of asking children and young persons with Down's Syndrome a number of questions about how they see themselves and feel about themselves. The questions that I ask are very simple to understand and most of them require a non-verbal response (e.g., posting a picture into a post-box and pointing to the relevant picture). I would need to visit each child at his or her school on at least two occasions. Each visit will take between 10 to 15 minutes. Before I work with each child I will explain to him or her what we will be doing together, and ask him or her if he or she is willing to help me with my work. I think it is important that I obtain each child's consent as well as

the consent of his or her school and parents. If you are willing to allow me to work with any of the pupils at your school I would need a contact address for each of the pupil's parents and/or guardians in order to ask them for their consent. Alternatively, it would be helpful if the school could pass a copy of the enclosed letter of parental consent on to the relevant parents and/or guardians.

I am planning to carry out the data collection between January and May 1997. This time-span should enable me to arrange a time convenient for you, your school, and the pupils. I would be very grateful if you would contact me at the above number or address, if you and the pupils' parents would be willing to allow me to work with the pupils with Down Syndrome at your school. If I am not available please leave a message on my answer machine at work, and I will return your call. Also, please do not hesitate to contact me if you would like further information about my research.

Thank you, and I look forward to hearing from you in due course.

Yours sincerely,

Amanda Begley.

2.4 Letter sent to parents via Down Syndrome Association

Researcher's address

and contact number

Dear Member,

I am being sponsored by the Down's Syndrome Association to study the aspirations and perceptions of children and young persons with Down's Syndrome. I am a second year PhD student carrying out this study through the University of Warwick. My supervisor is Dr. Ann Lewis. I am interested in the field of special needs because my sister has special educational needs. I am carrying out my research because I would like to gain an insight into how children with Down's Syndrome see themselves and feel about themselves while they are at school. I have carried out several pilot studies at a local special school and I am now ready to carry out the main study. I am hoping that you will be support this work by allowing me to work with your child.

My research consists of asking children and young people with Down's Syndrome a number of questions about how they see themselves. The questions are very simple to understand and most of them require a non-verbal response (e.g., posting a picture into a post-box and pointing to the relevant picture). I will need to visit each child at his or her school on at least two occasions. Each visit will take between 20 to 30 minutes. Before I work with each child I will explain to him or her what we will be doing together, and ask him or her if he or she is willing to help me with my work. I think it is important that I obtain each child's consent as well as the consent of his or her parents and school.

I hope work with a large number of children and young people with Down's Syndrome between the ages of 8 and 16 years living in the Midlands area. I want to work with both boys and girls, and with children in special schools and/or mainstream schools. I expect to carry out the interviews between January and July 1997. This time span should enable me to arrange a time convenient to your child and his or her school. I am happy to share with you any findings in relation to your child and the overall conclusions. I would be very grateful if you would contact me at the above number or address if you would be willing to allow me to work with your child at his or her school and/or if you would like any information about me research.. If I am not available please leave a message on my answer machine at work, and I will return your call.

Thank you, and I look forward to hearing from you in due course.

Yours sincerely,

Amanda Begley.

APPENDIX 3

PICTORIAL SCALE OF PERCEIVED COMPETENCE AND ACCEPTANCE

Below is a copy of the letter sent to researchers who constructed the Pictorial Scale of
Perceived Competence and Acceptance (Harter & Pike, 1981/1984) to request their
permission to use it in this research, the word changes made to the Scale for this study
and some examples from the Scale.

**3.1 Letter asking for permission to use the Pictorial Scale of Perceived
Competence and Acceptance (Harter & Pike, 1981/1984)**

Researcher's address
and contact telephone number

S. Harter and R. Pike
address

4.10.96

Dear S. Harter and R. Pike,

I am a PhD student at the University of Warwick, England. I am studying the self-
concept and self-perceptions of children with Down Syndrome. The University of
Warwick has purchased a copy of The Pictorial Scale of Perceived Competence and
Social Acceptance for Young Children, which I will be using as part of my research
design.

I am writing to ask if I could photocopy some of the pictures from this scale for my
second research task. In addition to completing the scale with the children, I will be
asking children with Down Syndrome questions about certain academic, physical and

social tasks. Children with Down Syndrome have limited language comprehension skills, and often can not read. Therefore, my discussions with them would be helped if I could show them pictures of the tasks I am asking them questions about. I feel that the pictures in the scale are appropriate because they have pictures for both sexes, they are relevant to my research aims, the pictures are also very clear and should be easily understood by the children. I plan to, for example, show the children a single picture of a child reading (i.e., Item 9 from the scale) and then ask them questions about reading, such as, "Do you like reading?, Are you good at reading? and so on.

I hope that you will give me permission to use some of the pictures in your scale, as having a visual representation should greatly facilitate the children's comprehension. Thank-you and I look forward to hearing from you in due course.

Yours Sincerely,

Amanda Begley.

3.2 Word changes to the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981).

ITEM NUMBER	ORIGINAL WORDING	AMENDED WORDING
Sample Question	always	a lot of the time
Sample Question	usually	none of the time
ITEM 1: Circles	not too good at	good at ... none of the time
Response circles	sort of good / pretty good	good at ... some of the time
Response circles	really good at	good at ... a lot of the time
Picture description	Pretty good at	very good at
ITEM 2: Circles	a whole lot of	a lot of
Response circles	pretty many	four or more
Response circles	a few	two or three
Response circles	hardly any	none or one
Picture description	doesn't have very many friends	doesn't have a lot of friends
ITEM 3: Circles	not too good at	good at ... none of the time
Response circles	sort of good / pretty good	good at ... some of the time
Response circles	really good at	good at ... a lot of the time
ITEM 5: Circles	knows a whole lot of	knows a lot of
Response circles	pretty many	four or more
Response circles	a few	two or three
Response circles	hardly any	none or one
Picture description	doesn't know very many	doesn't know lots of
ITEM 6: Circles	hardly any	none or one
Response circles	a few	two or three
Response circles	pretty many	four or more
Response circles	a whole lot	a lot

Picture description	a few kids	not a lot
Picture description	a whole lot of	a lot of
ITEM 7: Circles	really good	good at ... a lot of the time
Response circles	pretty good / sort of good	good at ... some of the time
Response circles	not very good	good at ... none of the time
Picture description	pretty	very
ITEM 9: Circles	not very good	good at ... none of the time
Response circles	sort of good	good at ... some of the time
Response circles	really good	good at ... a lot of the time
Picture description	pretty good	very good
ITEM 10: Circles	pretty many	four or more
Response circles	a few	two or three
Response circles	hardly any	none or one
Picture description	pretty many friends	a lot of
ITEM 11: Circles	not too good	good at ... none of the time
Response circles	sort of / pretty good	good at ... some of the time
Response circles	really good	good at ... a lot of the time
Picture description	pretty good	very good
ITEM 13: Circles	really good	good at ... a lot of the time
Response circles	pretty / sort of good	good at ... some of the time
Response circles	not very good	good at ... none of the time
Picture description	pretty good	very good
ITEM 14: Circles	hardly any	none or one
Response circles	a few	two or three
Response circles	pretty many	four or more
Response circles	a whole lot	a lot
Picture description	very many friends	a lot of friends
ITEM 15: Circles	really good	good at ... a lot of the time

Response circles	pretty / sort of good	good at ... some of the time
Response circles	not too good	good at ... none of the time
ITEM 16: Circles	not too good	good at ... none of the time
Response circles	sort of / pretty good	good at ... some of the time
Response circles	really good	good at ... a lot of the time
Picture description	pretty good at	very good at
ITEM 17: Circles	not too good	god at ... none of the time
Response circles	sort of / pretty good	god at ... some of the time
Response circles	really good	god at ... a lot of the time
ITEM 18: Circles	always	a lot of the time
Response circles	usually	some of the time
Response circles	sometimes	some of the time
Response circles	hardly ever	none of the time
Picture description	usually gets asked	gets asked
ITEM 19: Circles	not very fast	fast none of the time
Response circles	sort of / pretty fast	fast some of the time
Response circles	really fast	fast a lot of the time
Picture description	can run pretty fast	can run very fast
ITEM 21: Circles	really good	god at ... a lot of the time
Response circles	pretty / sort of good	god at ... some of the time
Response circles	not very good	god at ... none of the time
Picture description	pretty good	very good
ITEM 22: Circles	hardly any	none or one
Response circles	a few	two or three
Response circles	pretty many	four or more
Response circles	a whole lot	a lot
Picture description	a few	not a lot
ITEM 23: Circles	really good	god at ... a lot of the time

Response circles	pretty / sort of good	god at ... some of the time
Response circles	not very good	god at ... none of the time
Picture description	pretty good	very good

3.3 Example from the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981).

The following three questions represent academic (Item 1), social (Item 2) and physical (Item 3) questions taken from the First and Second Grades version of the Pictorial Scale of Perceived Competence and Acceptance (Harter & Pike, 1981). The examples are only of the left-hand page which contains the written material available to researchers. Pupils are shown the right-hand page which depicts two pictures relevant to the item questions. The examples below are taken from the booklet appropriate for male pupils. The booklet appropriate for female pupils contains the same questions but the word "boy" is replaced by "girl".

<div align="center">Item 1</div>

This boy isn't very good at numbers. This boy is pretty good at numbers.
Are you: Are you:

Not too good at numbers OR Sort of good?   Pretty good OR Really good at numbers?

①   ②   ③   ④

<div align="center">Item 2</div>

This boy has lots of friends to play with.   This boy doesn't have a lot of friends to play with.
Do you have: Do you have:

A whole lot of friends   OR   Pretty many?   A few   OR   Hardly any friends?

①   ②   ③   ④

Item 3

This boy isn't very good at swinging by himself. This boy is very good at swinging by himself.

Are you: Are you:

Not too good at   OR   Sort of good   Pretty good   OR   Really good
at
Swinging by yourself ?   Swinging by yourself?

① 1   ② 2   ③ 3   ④ 4

APPENDIX 4

SCORING SCHEDULE USED FOR THE SITUATIONS GRID

Name...   Age..............

Sex..............

Class/Grade...

Teacher....................................

School..   Test Date.................................

	Good at	hard work	Happy	Likes	Naughty
Writing					
Reading					
Maths					
On my own					
With lots of friends					
With my teacher					
Running					
Swimming					
Playing ball games					

APPENDIX 5

ESTABLISHING THE DISTRIBUTION OF THE DATA

The quantitative data were checked using the Kolmogorov-Smirnov one-sample test of goodness-of-fit to determine whether the distribution was Normal, Uniform or Poisson. Tables 1, 2 and 3 show whether the data were significantly different from each type of distribution. Where the P value displayed in the tables is above 0.05, the data is not significantly different from the distribution. The P values were more often found to be higher than (showing the data was closest to) a Normal distribution (66 out of 110 comparisons or 60% of distributions) in comparison to a Uniform distribution (2 out of 110 or 1.8%) or Poisson distribution (12 out of 110 or 10.9%).

Table 1. The differences between three difference distributions and the data drawn from the Pictorial Scale of Perceived Competence and Acceptance

Sample	Normal Distribution	Uniform Distribution	Poisson Distribution
All pupils (N = 87)			
Academic Self	.0087	.0000	.0000
Physical Self	.0514	.0000	.0000
Social Self	.0536	.0000	.0000
8 - 10 yrs. (n = 23)			
Academic Self	.1612	.0065	.0444
Physical Self	.4643	.0282	.0033
Social Self	.2629	.0065	.0228
11 - 13 yrs. (n = 28)			
Academic Self	.2699	.0001	.0091
Physical Self	.7152	.0012	.0368
Social Self	.3681	.0005	.0752
14 - 16 yrs. (n = 36)			
Academic Self	.3239	.0077	.0011
Physical Self	.0800	.0000	.0017
Social Self	.1476	.0003	.0016
Females (n = 45)			
Academic Self	.0470	.0000	.0009
Physical Self	.0642	.0000	.0000

Social Self	.0985	.0000	.0148
Males (n = 42)			
Academic Self	.1476	.0003	.0016
Physical Self	.5016	.0013	.0002
Social Self	.3332	.0063	.0001
Special school (n = 74)			
Academic Self	.0154	.0000	.0000
Physical Self	.1512	.0000	.0000
Social Self	.0559	.0000	.0000
Mainstream (n = 13)			
Academic Self	.6482	.1484	.2169
Physical Self	.4750	.0079	.0426
Social Self	.9880	.6966	.7116
SLD school (n = 41)			
Academic Self	.0347	.0000	.0000
Physical Self	.2015	.0029	.0000
Social Self	.3527	.0055	.0000
MLD school (n = 33)			
Academic Self	.2404	.0000	.2618*
Physical Self	.3933	.0148	.0347
Social Self	.2752	.0005	.0282

[* denotes when the data is closer to a distribution other than a Normal distribution.

SLD = School for pupils with Severe Learning Difficulties

MLD = School for pupils with Moderate Learning Difficulties]

Table 2. The differences between three difference distributions and the data drawn from

the Situations Grid across self-domains

Sample	Normal Distribution	Uniform Distribution	Poisson Distribution
All pupils (N = 64)			
Academic Self	.0000	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000
8 - 10 yrs. (n = 18)			
Academic Self	.0187	.0000	.0000
Physical Self	.0052	.0000	.0000
Social Self	.0000	.0000	.0000
11 - 13 yrs. (n = 19)			
Academic Self	.0060	.0000	.0000
Physical Self	.0009	.0000	.0000
Social Self	.0000	.0000	.0000
14 - 16 yrs. (n = 27)			
Academic Self	.0000	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000
Females (n = 33)			
Academic Self	.0000	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000
Males (n = 31)			
Academic Self	.0004	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000
Special school (n = 51)			
Academic Self	.0000	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000
Mainstream (n = 13)			
Academic Self	.0067	.0000	.0000
Physical Self	.0049	.0000	.0001
Social Self	.0002	.0000	.0000
SLD school (n = 21)			
Academic Self	.0021	.0000	.0000

Physical Self	.0003	.0000	.0000
Social Self	.0000	.0000	.0000
MLD school (n = 30)			
Academic Self	.0000	.0000	.0000
Physical Self	.0000	.0000	.0000
Social Self	.0000	.0000	.0000

[SLD = School for pupils with Severe Learning Difficulties

MLD = School for pupils with Moderate Learning Difficulties]

Table 3. The differences between three difference distributions and the data drawn from

the Situations Grid across the five constructs

Sample	Normal Distribution	Uniform Distribution	Poisson Distribution
All pupils (N = 64)			
Good at	.1846	.0003	.0043
Hard	.2604	.2664*	.0002
Happy	.3034	.0175	.0071
Likes	.5994	.3366	.0006
Naughty	.0001	.0000	.0086*
8 - 10 yrs. (n = 18)			
Good at	.9280	.2982	.1343
Hard	.5293	.3778	.0429
Happy	.4674	.0138	.9316*
Likes	.8033	.2435	.6782
Naughty	.1917	.0015	.7635*
11 - 13 yrs. (n = 19)			
Good at	.4480	.0972	.0259
Hard	.3402	.2140	.1779
Happy	.5254	.1439	.0339
Likes	.5340	.3969	.0312
Naughty	.0833	.0000	.6202*
14 - 16 yrs. (n = 27)			
Good at	.6098	.0247	.4179
Hard	.7937	.5843	.1543
Happy	.3090	.0443	.3209*
Likes	.4490	.2837	.0529
Naughty	.0145	.0000	.0246*
Females (n = 33)			
Good at	.3554	.0021	.0183
Hard	.4726	.1202	.0467
Happy	.7961	.1092	.1677
Likes	.7607	.4734	.0292
Naughty	.0526	.0000	.8769*
Males (n = 31)			
Good at	.5033	.2331	.0499
Hard	.2974	.0407	.0188
Happy	.5276	.1652	.0621

Likes	.9040	.6258	.0301
Naughty	.0049	.0000	.0086*
Special school (n = 51)			
Good at	.3188	.0133	.0206
Hard	.2926	.1130	.0014
Happy	.2662	.0349	.0059
Likes	.5612	.6184*	.0024
Naughty	.0004	.0000	.0140*
Mainstream (n = 13)			
Good at	.9083	.8631	.3500
Hard	.9028	.6236	.2581
Happy	.4514	.0981	.4031
Likes	.6991	.3795	.5097
Naughty	.1250	.0000	.9642*
SLD school (n = 21)			
Good at	.8661	.1942	.1922
Hard	.8651	.3023	.0994
Happy	.6357	.1458	.0808
Likes	.8551	.6983	.1418
Naughty	.0157	.0000	.5727*
MLD school (n = 30)			
Good at	.6290	.1196	.2128
Hard	.3122	.3512	.0057
Happy	.7719	.2017	.1270
Likes	.7988	.7156	.0291
Naughty	.0420	.0007	.0381

[* denotes when the data is closer to a distribution other than a Normal distribution.

SLD = School for pupils with Severe Learning Difficulties

MLD = School for pupils with Moderate Learning Difficulties]

APPENDIX 6

LETTER OF PERMISSION SENT TO PARENTS FOR STUDY 2

Researcher's address

and contact number

Dear *Name of case study pupils' parents,*

Name of pupils' Headteachers contacted you recently on my behalf about the research I am carrying out at the University of Warwick for the Down's Syndrome Association. Thank you for allowing me to work with *Name of case study pupil.* I enjoyed working with him and he was very helpful.

I am now in a position to begin the second stage of my research which will focus on 14 case study pupils, drawn from the overall sample of 96 pupils. This stage of my research will involve gaining more information on a selection of pupils by talking to the pupils, their teachers and their parents. I chose the case study pupils because they are representative of their age-group, their gender and their school-placement, and also because the pupils appeared to be comfortable with talking to me. *Name of case study pupil* would be an ideal case study pupil as he is representative of his group and was able to communicate well. I would be very grateful if you would allow me to come into school and talk to *Name of case study pupil* again. I would be asking *Name of case study pupil* about what he likes and dislikes about school, what he feels he is good at, his friendships and so on. I would also like to talk to you both about *Name of case study pupil,* to find out about his school history, your feelings about his schooling and his progress, your aspirations for his future, and so on.

Please do not hesitate to contact me at the above number and/or address if you would like further information about me or my research. If you are willing to help me with my

research could you please return the reply slip to the *Name of school*. I will then contact you so we can arrange a convenient time to talk about *Name of case study pupil*. I am happy to share with you any findings in relation to *Name of case study pupil* and the overall conclusions.

Thank you, and I hope that you will be able to help me with my research.

Yours sincerely,

Amanda Begley

CONSENT FORM

Pupil's name; *NAME OF CASE STUDY PUPIL*

Contact telephone numbers: Daytime ....

Evening ....

Please could you tick the box above the statement with which you agree;

☐☐
    I am willing to participate in, and to allow my child to participate in the research being carried out by Ms. Amanda Begley

☐☐
    I am NOT willing to participate in, and am NOT willing to allow my child to participate in the research being carried out by Ms. Amanda Begley

**Parent's or Guardians
Signature**..

APPENDIX 7

INTERVIEW SCHEDULES

Below are the interview schedules used in study 2 to interview pupils, parents and teachers.

7.1 Interview schedule for pupils

CASE STUDY PUPIL AND SCHOOL:
....

INTERVIEWEE:
....

PERSONAL DETAILS:
AGE   SEX   SCHOOL TYPE/SEVERITY
....

SELF-PERCEPTION LEVEL:
ACADEMIC   SOCIAL   PHYSICAL
....

SECTION 1: General attitude towards/ opinion of school

inter: What lessons have you just had? Do you like [the lesson]?

pupil:

inter:. What do you have this afternoon? Do you like [the lesson]?

pupil:

inter: Do you like coming to school?

pupil:

inter: What do you like about school? (Prompt for Anything else?)

pupil:

inter: Is there anything you do not like about school? What do you not like about school?

pupil:

inter: What lessons do you like/ dislike? Why do you like / dislike [the lessons]?

pupil:

inter: Why do you think you have to come to school?

pupil:

SECTION 2: <u>Academic competence.</u>

inter: What lessons are you most good at?

pupil

inter: Are there any lessons you not good at? What lessons are you not good at?

pupil:

inter:

pupil:

inter: Do you find any lessons very hard? Do you get stuck in any of you lessons? if

yes, follow with, What lessons do you find very hard?   What do you do if you get stuck

in a lesson and you can't do the work?

pupil:

SECTION 3: <u>Physical competence.</u>

inter: What are you most good at in PE?

pupil:

inter: Is there anything you do in PE that you are not good at? What?

pupil:

SECTION 4: <u>Friendships, social acceptance and social activities</u>.

inter: Do you have a lot of friends? What are your friends names?

pupil:

inter: Do you have a best friend? What is his/ her name? Why do you like [the best

friend's name]?

pupil:

inter: Do you like all the people in your class?

pupil:

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inter: Is there anyone in the class you don't like? Why dot you like [disliked pupil's names]?

pupil:

inter: Who do you play with at breaktimes?

pupil:

inter: Do you like doing things with other people?

pupil:

inter: Do you like to be on your own sometimes? (if yes, follow with When do you like to be on your own?)

pupil:

inter: Are the other children ever mean or nasty to you? (if yes, follow up with, When are they mean, What do they do that is mean?, Why do you think they are mean to you?).

pupil:

inter: Do you see your school friends after school? at weekends? (if yes, who? What do you and [friend's name(s) do together?). (if no, would you like to see any of your school friends outside school? who? what would you like to do with [friend's name]?).

pupil:

inter: Have any of your school friends ever been to your house? (if yes, who has come to your house? Does [friend's name(s)] come round to your house a lot? What do you do when [friend's name(s)] comes round?) (if no, would you like your school friends to come to your house?).

pupil:

inter: Have you ever been to a school friend's house? (if yes, who's house have you been to? Do you go there a lot? What do you do at [friend's name(s)] house?). (if no, would you like to go to one of your school friends houses? What would you like to do at your friends house?).

pupil:

inter: Do you have any friends that do not go to your school? (if yes, who? Where did you meet [friend's name(s)?, What do you do with [friend's name(s)]?)

pupil:

inter: What do you like to do in the evenings after school? (Do you do [the activity] every evening? Do you like doing [the activity]? Who do you do [the activity] with?)

pupil:

inter: What do you like to do at weekends? (Do you do [the activity] every weekend? Do you like doing [the activity]? Who do you do [the activity] with?)

pupil:

inter: What do you like doing when you are not at school? How often do you do [the activity]? Do you like doing [the activity] on your own or with someone? Who do you like doing [the activity] with?).

pupil:

SECTION 5: Aspirations

inter: What would you like to be good at in school?

pupil:

inter: Is there a lesson that you would like to be best in the class at? Which lesson?

pupil:

inter: Is there a sport that you would like to be best in the class at Which sport?

pupil:

inter: What do you want to do when you leave school?

pupil:

7.2 Interview schedule for parents

CASE STUDY PUPIL AND SCHOOL:
....

INTERVIEWEE:
....

PERSONAL DETAILS:
AGE   **SEX**   **SCHOOL TYPE/SEVERITY**
....

SELF-PERCEPTION LEVELS
ACADEMIC   **SOCIAL**   **PHYSICAL**
....

SECTION 1: **Background/factual information on the case study child.**

inter: What do you (and your husband/wife) do for a living? Is this full/ part time?

parent:

inter: Are you (and your husband/wife) [case study child's] biological parents? and Does [case study child] live with you (and your husband/ wife)? If no, Step-parents? Adoptive parents? Foster-parents, other relation (s)? How long has [case study child] lived with you? Does [case study child] have contact with his/ her biological father and/or mother?

inter: How many brothers and sisters does [case study child] have? How old are they? Do they all live at home with you and [case study child]?

inter: Are there any other people apart from you and your children, living in the family home?

inter: How are these people related to [case study child]?

inter: Does [case study child] have a lot of contact with his/her extended family, for example, grandparents, aunts and uncles, cousins etc.?

inter: How long has [case study child] been at [school]?/ with present class?

inter: Did [case study child] attend a school prior to his/her present school? Which school? Where is [school name]? Is [school name] a mainstream or a special school?

inter: Did [case study child] attend a playgroup or nursery? What was the playgroup/nursery called? Where was [name]? Was [name] a mainstream or special playgroup/nursery?

inter: How good is the [case study child's] school attendance record? (if record is poor follow up with What are the common reasons for [case study child's) poor attendance? Why do you feel [case study child's] is frequently absent from school?). Has [case study child] had any long absences from school? how long? how old was he/she then? Why was he/she absent?

inter: Do you have a lot of contact with [case study child's] present school? Under what circumstances have you come into contact with [case study child's] school?

inter: Are you happy with [case study child's] present school? Why?

inter: Does [case study child] have any hearing difficulties / visual impairments / speech problems / heart defects ?

inter: Does [case study child's] hearing difficulties / visual impairments / speech problems / heart defect affect his/her life? In what ways?

inter: Does [case study child] have any help to cope with these difficulties, for example hearing aids / visual aids / speech therapy / physiotherapy?

SECTION 2: <u>Home life and Child Rearing</u>

inter: Do you ever treat [case study child] differently from your other children / than how you would if she/he did not have Down Syndrome? If yes, How and in what ways do you treat him/ her differently? Does [case study child] ever need extra attention or assistance? (if yes, follow up with; Under which circumstance? How? Why?).

SECTION 3: <u>Critical incidents</u>

inter: Have there been any incidents during [case study child's] school year that have made you particularly happy or have given you pleasure? Could you tell me about it/them?

inter: Have there been any incidents during [case study child's] school year that have made him/her particularly happy or given him/her pleasure? Could you tell me about it/them?

inter: Have there been any incidents during [case study child's] school year that have worried and/or upset you? Could you tell me about it/them?

inter: Have there been any incidents during [case study child's] school year that have worried and/or upset him/her? Could you tell me about it/them?

SECTION 4: <u>Academic and physical competence of, and expectations for case study child.</u>

inter: What do you consider to be [case study child's] academic strengths? What is he/she good at?

inter: What do you consider to be [case study child's] academic weaknesses? What does he/she have problems with or difficulties in?

inter: How does [case study child] cope with these difficulties?

inter: How long does [case study child] spent on his/her homework each evening? Is [case study child] willing to do his/ her homework?

inter: Do you give [case study child] any help with his /her homework? Do you give [case study child] more help with his/her homework than you do his/her siblings?

inter: What physical activities and sports does [case study child] do well / have difficulties with?

inter: How does [case study child] cope with these difficulties?

inter: Do you consider that the last year has been a success academically for [case study child]?

inter: Could you please summarise for me your thoughts on [case study child's] academic ability and competence?

inter: Could you please summarise for me your thoughts on [case study child's] competence in PE?

inter: Do you get the impression that [case study child] likes school?

inter: What aspects of school do you get the impression that [case study child] likes? Dislikes?

inter: What are your expectations for [case study child's] future over the next academic year? What areas do you feel he/she will make progress in? What areas do you feel he/she will struggle in?

inter: What do you feel [case study child] will do after leaving this school? What do you feel [case study child] will do when his/her education finishes?

inter: Do you have any concerns about [case study child] future?

SECTION 5: Friendships, social competence and social activities of case study child.

inter: Has [case study child] got many friends at school?

inter: Does [case study child] have a special friend at school? How can you tell that [special friend's name] is a special friend?

inter: Do you get the impression that [case study child] as popular with his/her classmates?

inter: Do you think [case study child] is or has ever been bullied or made fun of by the other pupils?

inter: Does [case study child] see his /her school friends outside of school? When? How often? What activities does he/she do with his /her school friends?

inter: Do any of [case study child's] friends come to the family home? When? How often? What activities does he / she do with his /her friends when they come round?

inter: Has [case study child] got many friends who do not go to his her school? Who? How/ Where did [case study child] meet [friend (s)]? Do [friend (s)] have learning difficulties?

inter: Does [case study child] have a special friend (s) who do not go his / her school?

inter: Would you say most of [case study child's] friends have learning difficulties or do they not have learning difficulties?

inter: Does [case study child] get on well with his / her brothers and/or sisters?

inter: What do they do together?

inter: What does [case study child] typically do in the evenings after school? At weekends and school holidays? Who does he/ she do [the activities] with?

inter: What does [case study child] like to do the most when he/she is not at school?

inter: Does [case study child] belong to any clubs or societies? Are these clubs/ societies for people with learning difficulties? Why/why not?

inter: Do you feel [case study child] would like to do more and different activities in his/ her spare time? What and why doesn't she /he do these things?

inter: Would you like [case study child] to do more activities in his/her spare time?

inter: Does [case study child] prefer to do things alone or with others? (if others, who in particular, adults or children?)

inter: Would you describe [case study child] as a sociable child or a bit of a loner?

inter: Does [case study pupil] have any difficulties interacting and communicating with his/her peers?

inter: with his/her brothers and sisters?

inter: with you (and your husband / wife)?

inter: with other family members?

inter: How well does [case study pupil] appear to make and maintain friendships?

inter: Are there any aspects of [case study child's] personality and character that you feel help and/ or hinder his/ her ability to get along with other children and adults?

Inter: Could you please summarise for me your thoughts on [case study pupil's] ability to interact with others?

SECTION 6: Temperament, personality and Behaviour of case study pupil.

inter: How does [case study child] feel about himself/ herself ?

inter: How much effort does [case study child] put into things like homework?

inter: How much do you have to push [case study child] to see that he/ she does his/ her work?

inter: How much effort is [case study child] willing to exert in the face of difficulty.

inter: How easily is [case study child] distracted from a task he/ she is engaged in?

inter: Does [case study child] present any behaviours that are a problem to you and/or the other people in the family home?

inter: Could you please describe [case study child's] general behaviour and personality including positive and negative aspects?

inter: Are there any additional comments that you would like to make about the things we have discussed or is there anything that we have not covered that you feel would be of interest to me about [case study child]?

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7.3 Interview schedule for teachers

CASE STUDY PUPIL AND SCHOOL:
....

INTERVIEWEE:
....

PERSONAL DETAILS:
AGE   SEX   SCHOOL TYPE/SEVERITY
....

SELF-PERCEPTION LEVELS
ACADEMIC   SOCIAL   PHYSICAL
....

SECTION 1: Background/factual information on teacher and case study child.

inter:. How long has [case study pupil] been at [school]?/ with present class?

inter: How long have you taught [case study child]?

inter: What lessons do you take [case study child] for? Is she/he taught by other teachers for some lessons? What lessons? How many different teachers does she/he have?

inter: How good in the [case study child's] school attendance record? (if record is poor follow up with What are the common reasons for [case study pupil's) poor attendance? Why do you feel [case study child's] is frequently absent from school?).

inter: Do [case study pupil's] parents have a lot of contact with you and the school? Under what circumstances have you come into contact with [case study pupil's] parents?

inter: How many pupils are in [case study pupil's] class including [case study pupil]?

inter: How many other pupils in the class have Down Syndrome? (If in a mainstream school also ask How many other pupils in the class have learning difficulties requiring special attention?).

inter: What is the sex distribution of the class?

inter: How many assistant teachers and/or special helpers are in the class?

inter: Are the pupils streamed for any subjects? (If yes follow up with, Which subjects are the pupils streamed for? What basis are the pupils streamed on? Are the groups taught differently? Which groups is [case study pupil] in for ... ?

inter: What teaching method or methods do you employ most with the class, for example, whole-class instruction, group work, individualised work, multiple-task or single-task class work?

inter: How do the pupils get feedback on their performance, for example, publicly praised, progress charts, individual grades or comments written on their work etc.?

SECTION 2: Critical incidents

inter: Have there been any incidents during [case study pupil's] school year that have made you particularly happy?

inter: Have there been any incidents during [case study pupil's] school year that you feel has made him/her particularly happy or have given him/her pleasure?

inter: Have there been any incidents during [case study pupil's] school year that have worried and/or upset you?

inter: Have there been any incidents during [case study pupil's] school year that you feel has worried or upset him/her?

SECTION 2: Academic and physical competence of, and expectations for case study pupil.

inter: How competent academically is [case study pupil] relative to his/her classmates overall? and for maths? for writing? for reading? for spelling?

inter: What do you consider to be [case study pupil's] academic strengths? What is he/she good at?

inter: What do you consider to be [case study pupil's] academic weaknesses? What does he/she have problems with or difficulties in?

inter: How does [case study pupil] cope when He /she is having difficulties with his / her work?

inter: How competent in PE is [case study pupil] relative to his/her classmates?

inter: What aspects of PE does [case study pupil] do well / have difficulties with?

inter: How does [case study pupil] cope with these difficulties?

inter: Could you please summarise for me your thoughts on [case study pupil's] academic ability and competence? Do you consider that the last year has been a success academically for [case study pupil]?

inter: Could you please summarise for me your thoughts on [case study pupil's] competence in PE?

inter: Do you get the impression that [case study pupil] likes school?

inter: What aspects of school do you get the impression that [case study pupil] likes? Dislikes?

inter: Do you ever have to treat [case study pupil] differently from the other pupils in the class? Does [case study pupil] ever need extra attention or assistance? (if yes, follow up with; Under which circumstance? How? Why?).

inter: What are your expectations for [case study pupil's] future over the next academic year? What areas do you feel he/she will make progress in? What areas do you feel he/she will struggle in?

inter: What do you feel [case study pupil] will do after leaving this school? What do you feel case study child will be doing when his/her education finishes?

SECTION 3: Friendships, social competence and social activities of case study pupil.

inter: Has [case study pupil] got many friends at school?

inter: Does [case study pupil] have a special friend?

inter: Does [case study pupil] prefer to work alone or in groups?

inter: Is [case study pupil] able to work co-operatively in a group situation?

inter: Would you describe [case study pupil] as a sociable child or a bit of a loner?

inter: Would you describe [case study pupil] as popular with his/her classmates?

inter: Do you think [case study pupil] is or has ever been bullied or made fun of by the other pupils?

inter: How easily does [case study pupil] interact and communicate with his/her peers?

inter: How well does [case study pupil] appear to make and maintain friendships?

inter: How easily does [case study pupil] interact and communicate with you and other adults?

inter: Are there any aspects of [case study pupil's] personality and character that you feel help/ hinder his/ her ability to get along with other children and adults?

inter: Could you please summarise for me your thoughts on [case study pupil's] ability to interact with others?

SECTION 4: Temperament, personality and Behaviour of case study pupil.

inter: How hard does [case study pupil] try in school?

inter: How does [case study pupil] feel about himself/ herself ?

inter: How much do you have to push [case study pupil] to see that he/ she does his/ her work?

inter: How much effort is [case study pupil] willing to exert in the face of difficulty.

inter: How easily is [case study pupil] distracted from his/ her work?

inter: Does [case study pupil] present any behaviours that are a problem to you and/or the other pupils in the class?

inter: Could you describe [case study pupils] general behaviour in the classroom?

inter: Are there any additional comments that you would like to make about the things we have discussed or is there anything that we have not covered that you feel would be of interest to me about [case study pupil]?

APPENDIX 8

OBSERVATION SCHEDULE

Below is the observation schedule used in study 2 and the abbreviations used during

the observations.

8.1 Observation schedule

Case study pupil: Age: School:
Date:

Contextual Information	
e.g.,: Classroom layout; Seating arrangements; Position of teacher and teacher's desk; position of case study pupil; rough sex ratio; resources and materials in room; Wall displays; Curriculum context.	

Pedagogic context	Main (M) or Part (P) or Absent (A)
Whole-class instruction	
Individual work	
Co-operative group work	
Group work with teacher	
Other (specify)	

Pupil
Observation lesson and number   **Time**

	Activity Record	Language Record	Social Code	Behaviour Code
1				
2				
3				
4				
5				

Pupil
Observation lesson and number   **Time**

6			
7			
8			
9			
10			

8.2 ABBREVIATIONS

Social Codes: (Whom the Csp is with and whether there is interaction between them).

O =   Alone.

G =   With one girl.

G2gp ... G4gp =   With a group of 2 girls ... With a group of 4 girls.

GLgp =   With a large group of girls (5 and above).

B =   With one boy.

B2gp =   With a group of 2 boys ... With a group of 4 boys.

BLgp =   With a large group of boys (5 and above).

M2gp ... M4gp =   With a mixed group of 2 children ... With a mixed group of 4

children.

MLgp =   With a large mixed group of children.

Ter/Csp =   With teacher on a one-to one basis.

Ter/2gp .... Ter/4gp = With teacher in a group of 2 ... a group of 4 other children.

Ter/Lgp =   With teacher in a large group of children (5 and above).

A/Csp =   With an adult (who is not the teacher or SENCO, e.g., assistant

teacher) on a one-to one basis.

A/2gp .... Ter/4gp =   With an adult in a group of 2 ... a group of 4 other children.

A/Lgp =   With an adult in a large group of children (5 and above).

S/Csp =   With SENCO on a one-to one basis.

S/2gp .... Ter/4gp =   With SENCO in a group of 2 ... a group of 4 other children.

S/Lgp =   With SENCO in a large group of children (5 and above).

If the case study pupil is actually interacting with the given person that the code will be circled (e.g., GLgp).   If the case study pupil is just near to or with, but not interacting with the given person the code will not be circled (e.g., GLgp).

Behaviour Codes: (A summary of the classroom behaviour of the Csp).

TE =   Task Engagement.

WTer =   Waiting for the teacher.

WO =   Waiting for other.

LTer =   Listening/attending to the teacher.

LO =   Listening/attending to other (s).

D =   Non-task oriented/ distracted.

Mis =   Misbehaving.

Out =   Out of room.

Language Record; (What Csp says and to whom, what is said to Csp and by whom).

\> =   Shows the direction of the conversation, for example, Ter > Csp

= Teacher is talking to the case study pupil.

Csp =   Case study pupil.

Ter =   Teacher.

A =   Adult (not the classroom teacher)

G =   one girl (annotated with the number of girls if speaking to a group or with the letter "L" if group is above 5).

B =   one boy (annotated with the number of boys if speaking to a group or with the letter "L" if group is above 5).

Mgp =   mixed group (annotated with number in group if speaking to a group or with the letter "L" if group is above 5).

Activity Record; (What the Csp does within each minute, or is done to the Csp).

There are no specific codes for this section as what happens will be written down in full. Although some of the above codes may be employed to save time. No interpretations will be given. The Csp's non-verbal behaviour will be included.

APPENDIX 9

RESPONDENT VALIDATION LETTERS

Below are photocopies of the letters sent by parents and teachers to the request for respondent validation. The addresses and signatures have been removed to protect the respondents' identities.

9.1 Letter from Lucy's mother

12th August 98

Dear Amanda,

I am very sorry indeed that it has taken me so long to return the enclosed. We have discussed my main reaction which centred on the issue of confidentiality. I felt you had given me an undertaking that I could read any material before it was circulated. I was therefore concerned that the school was sent your report without my having seen it.

The remaining comments are largely about the context of remarks. I have marked these on your text.

It was very interesting to read your findings. I wish you well with your thesis.

Best Wishes.

yours sincerely,

5th June 98

Dear Amanda,

Many thanks for the copy of your paper. I hope that the pencilled comments in the margin do not seem too schoolmasterly.

In a way, the lack of common conclusions is strangely comforting. Down syndrome youngsters are clearly as diverse as any other grouping and the fact that this in itself does not necessarily lead to low (or high) self-perception is an encouraging finding.

You make no mention of your own sister. Was that a deliberate policy from the outset?

Best wishes for the future

9.3 Letter from the teacher of 16 year old male pupil in mainstream school

Dear Miss Begley,

Thank you for your paper 'Case Studies: The Common Findings. I enjoyed reading it, and found your observations very useful.

Pupils with Down Syndrome are individuals in their own right, and will, consequently, develop their own characters and attitudes in much the same way as other people.

The greatest sense of frustration experience by the pupils in your study seems to be in self awareness and the expectations of others. Realistic and demanding expectations help develop self awareness and independence, but bring with them risks – knowing who you are may not be pleasant.

Our challenge, as teachers, is to develop programmes, which enable pupils with Down Syndrome, and their families, to make the most of their lives.

I think your research will help in that development.

Yours sincerely,

APPENDIX 10

CASE STUDY VALIDATION

It was necessary to assess the validity of the self-perception categories assigned to each case study pupil on the basis of their scale and grid results (the quantitative data). Three postgraduate students were given the 14 case studies to read and evaluate in their own time. The students were asked to select 7 case studies and to read the information on each of the chosen case studies (i.e., pupil, parental and teacher interviews and one observation schedule). Students were also asked to use the case study data to categorise the 7 pupils into having either high, middling or low self-perceptions and to make comments supporting their categorisation decision

10.1 Comments from reader 1 (PhD student)

Chose to read and evaluate the self-perceptions of pupils; 1, 3, 4, 5, 6, 9 and 11.

Pupil 1: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "high" self-perceptions and wrote the following;

- "Sociability and happiness create the impression of high esteem - also effort and liking school.
- But fairly passive when can't cope (teacher comment) and temper (parental comment).
- Problems with other pupils (friends) seem to blow over.
- Follows in lessons, involved and enjoyment"

Pupil 2: Had medium self-perceptions according to the quantitative data, low self-perceptions in comparison to the sample as a whole.

Reader 1 also felt pupil 1 had "middling" self-perceptions and wrote the following;

- "Seems to need to assert himself more than a truly confident person would.
- Self admits he doesn't always like school.
- More of a loner. Likes "peace and quiet"

- Non conformist.

- Problems interacting. Low maturity and selfishness but is improving.

- Seems to be a lot of trauma in life - fights and deaths

- Teacher says esteem is good, also parents".

Pupil 4: Had medium self-perceptions according to the quantitative data, low self-perceptions in comparison to the sample as a whole.

Reader 1 also felt pupil 1 had "middling" self-perceptions and wrote the following;

- "Typical teenager!

- Parents say teenage rebellion - self-esteem is part of it.

- Doesn't care about work, appearance.

- Very sociable".

Pupil 5: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "high" self-perceptions and wrote the following;

- "'Doesn't know' if others are mean.

- Sense of control.

- Happy child, sociable, confident about new things.

- Loving and secure"

Pupil 6: Had medium self-perceptions according to the quantitative data, low self-perceptions in comparison to the sample as a whole.

Reader 1 also felt pupil 1 had "middling" self-perceptions and wrote the following;

- "Regressing. Over-sensitive. Traumatised.

- Frustrated by own disabilities - doesn't want help.

- Incidence in class - can't cope.

- Mother's confidence low too. Doesn't know what to do.

- Sociable. Attention-seeking

Pupil 9: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "quite high" self-perceptions and wrote the following;

- "Proud of achievements.
- Likes to be centre of attention
- Frustration.
- Happy - but needs a push".

Pupil 11: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "high" self-perceptions and wrote the following;

- "Pleasure from and reinforcement from others.
- Tries to overcome impediments.
- Thinks can do more than she does, fearless. Contradicted later.
- Teacher said Child's timidity when doesn't know.
- Makes own decision = happier".

10.2 Comments from Reader 2 (MA student)

Chose to read and evaluate the self-perceptions of pupils; 1, 5, 7, 8, 10, 13 and 14

Pupil 1: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "high" self-perceptions and wrote the following;

"Good at sport, has friends, enjoys leisure activities like cooking. Willing to work hard

which shows he enjoys his schoolwork. Seems to be continually improving. He's prone

to crying than previously. Very supportive parents. Mixes well with other children and

has a good relationship with his sisters".

Pupil 5: Had high self-perceptions according to the quantitative data.

Reader 1 also felt pupil 1 had "medium to high" self-perceptions and wrote the following;

"Good parental support although lacks siblings to interact with. He does however have friends at school. Has possibly been bullied outside of school. Has fairly violent tantrums from time to time. Teacher says his confidence level has improved. Teacher seems more positive towards his achievements than his parents do. As he gets older his abilities and confidence have improved.

Pupil 7: Had medium self-perceptions according to the quantitative data, low self-perceptions in comparison to the sample as a whole.
Reader 1 also felt pupil 1 had "medium" self-perceptions and wrote the following;
"Very independent with regard to schoolwork. Has had a previous bullying experience. Phobia about dogs, but this not related to self-esteem. Mother very involved with social activities of her daughter. Little interaction with sister at present. Wants "named" clothing which either means she is aware of her self-image or just means she is copying her sister. Reluctant to make new friends. Happy to entertain herself. Doesn't always need friends around. Quite shy. Very able student, excellent co-ordination in sports.

Pupil 8: Had ?high self-perceptions according to the quantitative data.
Reader 1 also felt pupil 1 had "high" self-perceptions and wrote the following;
"Very confident about her own abilities. Is quite forthright and rather bossy. Has good conversational skills and is capable of being very independent. She is aware that academically she is the best in her class which would boost her self-esteem no end".

Pupil 10: Had medium self-perceptions according to the quantitative data, low self-perceptions in comparison to the sample as a whole.
Reader 1 also felt pupil 1 had "medium" self-perceptions and wrote the following;
"Likes to be praised and becomes frustrated when she makes mistakes. Copes with attending mainstream school and has friends without learning difficulties. Has a good relationship with her younger sister. Enjoys her own company. Is aware that she has learning difficulties in comparison to her sister and some of her friends. Does not co-

operate fully in class. Reading ability is good. Rather less of a social person, more creative in an individual capacity. Possibly has a stern upbringing".

Pupil 13: Had high self-perceptions according to the quantitative data.
Reader 1 also felt pupil 1 had "low" self-perceptions and wrote the following;
"Not very responsive to questions. Doesn't place herself very highly academically, slightly better at sports, particularly climbing. Very shy. Finds it difficult to make eye contact. Is having some problems with bullying. Teacher is more positive about her academic achievements. She tends not to speak up and seems very introverted. Occasionally, however, has a tendency to be bossy or over-familiar. This generally in relation to boys. Mother does not tend to involve herself very much with her daughters schooling".

Pupil 14: Had medium self-perceptions according to the quantitative data, and low self-perceptions in comparison to the sample as a whole.
Reader 1 also felt pupil 1 had "medium" self-perceptions and wrote the following;
"With the exception of reading, is very confident about her academic and sporting abilities. Had earlier problems of insecurity but has grown out of that. Is one of the more able pupils so would derive confidence from this. Has a bit of a problem controlling her temper. Likes to be very independent and prove she can do things without help. If she feels she won't be able to achieve something and will look like a failure in front of her peers, than she refuses to have a go. Does not have the confidence to make herself attempt things which she is not very good at. Has been called names by local children. Gets a lot of input from her mother".